Atlantic Technical College
Avionics Systems Technician
Program Syllabus 2023-2024

Instructor Name: Michelle Turnbull
Department Name: Transportation
Office/Classroom Location: Bldg. 12 Room 227
Phone Number: 754-321-5138 **Email Address:** michelle.hyltonturnbull@browardschools.com

Instructor Office Hours:
M-F: 1:50 PM – 3:50 PM
(By appointment only)

Student Hours:
Monday – Friday
7:05 AM to 1:50 PM
(Adults)

7:05 AM to 10:10 AM
(High School 11th Graders)

Lunch: 10:10 AM to 10:40 AM
Break: 10:40 AM to 10:50 AM

10:50 AM to 1:50 PM
(High School 12th Graders)

NOTE: All students are expected to be present during their entire scheduled class time(s). All classroom breaks will occur on an "as needed" basis. The wall clock in the classroom will serve as the official time.

Program Name: Avionics Systems Technician – T400310
Career Cluster: Transportation, Distribution and Logistics

OCPs	Course Number / Title	Course Length
A	AVS0680/Basic Electronics Wiring Installer/Technician	150 hours
B	AVS0681/Electrical Systems Technician	150 hours
C	AVS0682/Analog Circuits Technician	150 hours
D	AVS0683/Aircraft Electronics Technician	150 hours
E	AVS0684/Avionics Installer/Technician	300 hours
F	AVS0685/Advanced Avionics Installer/Technician	300 hours
		1200 total hours (full-time, including summer)

Technical College Policy/Adult Student Attendance:

- A student must be withdrawn after being absent for six (6) consecutive days.
- Two (2) additional absences may be allowed under certain circumstance with appropriate documentation.
- Please refer to the Broward Technical College Student Handbook for postsecondary students: http://www.atlantictechnicalcollege.edu/atc-student-handbook/

Attendance:

- For Postsecondary (Adult) Students: Excessive absences or tardies can lead to involuntary withdrawal from the program. Reentry will require referral to the program counselor or administrator.
- To minimize class disruption, if a student is out of class for an excessive period as identified by the instructor, that student will be marked absent for the day for attendance and grading purposes.

Additional school attendance rules are as follows:

- Post-Secondary students there are no excused absences.
- Please refer to the Student Handbook for postsecondary students. ATC Student Handbook

Magnet High School/Attendance Policy: A student who has had at least five unexcused absences, or absences for which the reasons are unknown, within a calendar month, or 10 unexcused absences, or absences for which the reasons are unknown, within a 90-calendar-day period, may be exhibiting a pattern of non-attendance (F.S.1003.26 (1) (b)) and the School Board of Broward County, Policy 5.5.

Required Book(s) and/or Online Access	Required Materials/Supplies
Available for purchase at the ATC Bookstore: • Uvex Anti-Fog Safety Glasses (Adult & High School Students)	Purchased from ATC Bookstore: • Notebooks • Writing Utensils (pen and pencil) • Pocket Flashlight • Disk Flash Drive • Magnifying Glass • Ruler • Calculator • Drawing utensils (protractor, compass) **Recommended Materials/Supplies** Details from Instructor • Toolbox/bag • Wrenches • Screwdrivers • Pliers

ADULT STUDENTS: All required books and some materials/supplies can be purchased from the school bookstore. Stop by during operational hours for pricing & purchasing information. All other required materials / retail supplies not available at the bookstore need to be purchased elsewhere. All required books and required materials/retail supplies need to be obtained prior to the start of the program.

HIGH SCHOOL STUDENTS: Students receive required material listed above with the exception of safety glasses. High School students are responsible for the care and return of all the required books and required materials/supplies on loan and will be issued an obligation for damaged or missing books and/or materials/supplies. Some of the required materials/supplies can be purchased from the school bookstore. Stop by during operational hours for pricing & purchasing information.

Accommodations: Federal and state legislation requires the provision of accommodations for students with disabilities as identified on the secondary student's IEP or 504 plan or postsecondary student's accommodations plan to meet individual needs and ensure equal access. Postsecondary students with disabilities must self-identify, present documentation, request accommodation if needed, and develop a plan with their postsecondary service provider. The accommodation received in postsecondary education may differ from those received in secondary education.

Accommodation changes the way the student is instructed. Students with disabilities may need accommodation in such areas as instructional methods and materials, assignments and assessments, time demands and schedules, learning environment, assistive technology and special communication systems. Documentation of the accommodation requested and provided should be maintained in a confidential file.

In addition to accommodation, some secondary students with disabilities (ESE) will need modifications to meet their special needs.

Modifications change the outcomes or what the student is expected to learn, e.g., modifying the curriculum of a secondary career and technical education course.

- Note postsecondary curriculum cannot be modified.
- Some secondary students with disabilities (ESE) may need additional time (i.e., longer than the regular school year), to master the student performance standards associated with a regular occupational completion point (OCP) or a modified occupational completion point (MOCP).
- If needed, a student may enroll in the same career and technical course more than once. Documentation should be included in the IEP that clearly indicates that it is anticipated that the student may need an additional year to complete an OCP/MOCP.
- The student should work on different competencies and new applications of competencies each year toward completion of the OCP(s)/MOCP. After achieving the competencies identified for the year, the student earns credit for the course.
- It is important to ensure that credits earned by students are reported accurately. The district's information system must be designed to accept multiple credits for the same course number (for eligible students with disabilities).

Academic Integrity/Conduct: Students are expected to uphold ATC's standard of conduct relating to academic honesty. Students assume full responsibility for the content and integrity of the

academic work they submit. The guiding principle of academic integrity shall be that a student's submitted work, examinations, reports, and projects must be that of the student's own work. Students shall be guilty of violating the honor code if they:

- Represent the work of others as their own.
- Use or obtain unauthorized assistance in any academic work.
- Give unauthorized assistance to other students.
- Modify, without instructor approval, an examination, paper, record, or report for the purpose of obtaining additional credit.
- Misrepresent the content of submitted work.

Grading System:

A 90 - 100%
B 80 - 89%
C 70 - 79%
D 60 - 69%
F 0 - 59%
I Incomplete

Grading/Areas of Evaluations

- Labs   25%
- Tests/Quizzes   25%
- Classwork/Homework Projects/Current Event   25%
- Work Ethics/Attendance   25%

Scores on tasks sheets/activities for specific competencies are averaged into the daily grade for the day(s) they are assigned.

Course Grading Policy: A final course grade average of a "D" or better is required in all the program courses to be issued a certificate.

NOTE: Please e-mail or call the instructor whenever any problems arise or when help is needed. (See contact information above).

View Your Grades:
Grades can be viewed online by following the directions below:
1. Go to https://browardfocus.com (access FOCUS using Chrome, Firefox or Safari)
2. Student ID which is on your student schedule.
3. Passcode: Student's date of birth formatted as PMM/DD/YYYY.
    Two digits for the month, two digits for the day and Four digits for the year.

Classroom/Lab Rules:
1. Students must be in class, by 7:05 AM and return from lunch break by 10:50 AM.
2. Students must always wear closed-toe shoes.
3. Students are required to always adhere to the Code of Conduct, as set forth by the School Administration and the Student Handbook.
4. Students are to always show respect to other students and the teacher.
5. Students are responsible to keep their personal belongings in a teacher-designated area.
6. All electronic devices must be silent and out of sight during instructional time. This includes cell phones, earbuds, smartwatches, headphones, mp3 players, etc. The

school and/or teacher are not responsible for lost or stolen devices/personal belongings of any kind.

7. Computer use is a privilege and should only be used for researching related information and to complete required assignments/classwork.
8. Students are expected to always maintain a clean and neat work area.
9. Students must notify teacher, in advance, if planning to miss a portion of class time(s) for ANY reason.
10. Students must sign-out all equipment needed for their lab activities and will be responsible for its safe usage.
11. Students must not work on other student's equipment or utilize their supplies.
12. Students are not allowed to utilize hand or power tools without the instructor's permission or instruction.
13. Absolutely no fighting or horseplay of any kind.

Please Note: Working in the shop is a privilege that can be revoked if these rules are not followed.

Avionics Industry Credentials:	**Outstanding Student Recognition Information:**
• Aerospace/Aircraft Assembly (AAA) $175 • Aircraft Electronic Tech (AET) $175 • Avionics Electronics (AVN) $80 • Certified Electronics Technician Associate (CETA) $65 • AC Excellence Electrical Employment Ready (HS Only) $15 • OSHA 10 Hour Safety $40	A gold seal will be applied to a Program Completion Certificate or an Applied Technology Diploma if the student has earned a 3.5 GPA or higher in their Career and Technical Education (CTE) classes.

Program Name: Avionics Systems Technician – T400310

Course Number: AVS0680
Course Name: Basic Electronics Wiring Installer/Technician
Occupational Completion Point: A
Intended **Outcomes:**
01.0 Demonstrate proficiency in the fundamentals of aviation maintenance technology.
02.0 Demonstrate skills in technical communications.
03.0 Demonstrate proficiency in basic aircraft wiring and PCB practices.
04.0 Demonstrate proficiency in basic direct current (DC) circuits.
05.0 Demonstrate proficiency in advanced direct current (DC) circuits.
06.0 Demonstrate proficiency in aircraft direct current (DC) power systems.

Course Number: AVS0681
Course Name: Electrical Systems Technician
Occupational Completion Point: B
Intended Outcomes:
07.0 Demonstrate proficiency in alternating current (AC) circuits.
08.0 Demonstrate proficiency in advanced alternating current (AC) circuits.
09.0 Demonstrate proficiency in alternating current (AC) circuit components.
10.0 Demonstrate proficiency in aircraft alternating current (AC) power systems.
11.0 Demonstrate proficiency with aircraft drawings.

Course Number: AVS0682
Course Name: Analog Circuits Technician
Occupational Completion Point: C
Intended Outcomes:
12.0 Demonstrate proficiency in solid state devices.
13.0 Demonstrate proficiency in analog circuits.
14.0 Demonstrate an understanding of basic avionics corrosion.
15.0 Demonstrate proficiency in aircraft aerodynamic fundamentals.
16.0 Demonstrate proficiency in Unmanned Aerial Systems Foundations.
17.0 Demonstrate knowledge in Unmanned Aerial Vehicle Operations.

Course Number: AVS0683
Course Name: Aircraft Electronics Technician
Occupational Completion Point: D
Intended Outcomes:
18.0 Demonstrate proficiency in digital circuits.
19.0 Demonstrate proficiency in fundamental microprocessors.
20.0 Demonstrate an understanding of workplace safety practices.
21.0 Demonstrate appropriate communication skills.
22.0 Demonstrate employability skills.
23.0 Demonstrate an understanding of entrepreneurship.
24.0 Demonstrate knowledge of basic avionics systems.

Course Number: AVS0684
Course Name: Avionics Installer/Technician
Occupational Completion Point: E
Intended Outcomes:
25.0 Demonstrate proficiency in installing avionics systems.
26.0 Demonstrate proficiency in structural applications.
27.0 Demonstrate proficiency in avionics radio station regulations and procedures.
28.0 Demonstrate proficiency in AM and FM transmitters.
29.0 Demonstrate proficiency in AM and FM receivers.
30.0 Demonstrate proficiency in AM and FM transceivers.
31.0 Demonstrate proficiency in electromagnetic wave emissions.
32.0 Demonstrate proficiency in line maintenance of airborne communication systems.

Course Number: AVS0685
Course Name: Advanced Avionics Installer/Technician
Occupational Completion Point: F
Intended Outcomes:
33.0 Demonstrate proficiency in line maintenance of aircraft instrument systems.
34.0 Demonstrate proficiency in aircraft data bus systems.
35.0 Demonstrate proficiency in line maintenance of airborne navigation systems and equipment.
36.0 Demonstrate proficiency in primary and secondary radar systems.
37.0 Demonstrate proficiency with in-flight entertainment systems.
38.0 Demonstrate proficiency with engine and airframe monitoring systems.
39.0 Demonstrate proficiency with pitot-static systems.
40.0 Demonstrate proficiency with aircraft safety systems.

to file a discrimination and/or harassment complaint may call the Director, Equal Education Opportunities/ADA Compliance Department at 754-321-2150 or Teletype Machine (TTY) 754-321-2158. Individuals with disabilities requesting accommodations under the Americans with Disabilities Act Amendments Act of 2008, (ADAAA) may call Equal Educational Opportunities/ADA Compliance Department at 754321-2150 or Teletype Machine (TTY) 754-321-2158.