Aviation B.S. Degree
Aerospace Technology (AT) Concentration
2+2 Agreement: Jefferson Community & Technical College

Aviation at EKU
EKU Aviation provides the aerospace industry with the safest, best trained, and most adaptable pilots and managers. The Bachelor of Science degree has concentrations in Professional Flight, Aerospace Management, or Aerospace Technology (AT). Besides a general aviation core, aviation students are required to take supporting courses in mathematics, statistics, physics, and business management. Graduates of the program are professionally prepared for all facets of the aerospace and aviation industry to include piloting, flight instruction, aviation management, and aerospace technology.

Professional Flight
The professional flight concentration is the only Federal Aviation Administration (FAA) approved university flight program in Kentucky. Students receive flight certification as Private, Instrument, Commercial, Instructor, and Multi Engine pilot. Very few U.S. aviation programs offer 100 multiengine hours as part of the commercial pilot certificate training, coupled with an aviation bachelor’s degree. This advantage makes EKU aviation the premier choice for those interested in flying careers with the airlines, air charter companies, or military aviation.

Aerospace Technology (AT)
A leader in innovation, EKU Aviation is on the forefront of meeting market demands by offering a hard-to-find aviation degree-completion concentration. By adding upper division aerospace management and operations studies, the Bachelor’s degree AT concentration is specifically designed to complete a 2-year community college degree with a heavy technical aviation course load. Examples of aviation technical degrees include Airframes & Power Plants (A&P), a 2-year helicopter and/or airplane proflight degree, or any 2-year career technical (CTE) degree partnered with a local flight school. Additionally, non-degreed airline pilots with the Airline Transport Pilot (ATP) certificate may complete their bachelor’s degree. This concentration is designed to be offered online throughout Kentucky and the US or on-campus in Richmond.

Aviation Careers
The U.S. Department of Labor projects employment of aircraft pilots to increase nine to ten percent through 2014. The “Age 65 Rule,” (Dec. 2007), will reintroduce the beginning of another pilot shortage in the next few years as the initial wave of already very senior pilots begin to retire. In the long run, demand for air travel is expected to grow along with the population and the economy. Median annual earnings of commercial pilots are around $50,000. Average entry level incomes for management are $30,000-$40,000. EKU aviation graduates have found positions with Delta, Chautauqua Airlines, Jet Blue, Continental, Kentucky Department of Aviation, U.S. Military, San Antonio International Airport, L-3, Kentucky State Police, Louisville Police Department, and through self-employment.

Department Facilities, Faculty and Student Organizations
The Department is located in the Ralph W. Whalin Technology Complex which includes approximately 100,000 square feet of classroom and laboratory space plus a simulator facility. The facilities are located in the central portion of campus, close to the library, classroom buildings and dormitories. Flight training is conducted primarily at the Madison County Airport (Identifier I39). Faculty in the aviation program have real world industry experience ranging from military to airlines to corporate aviation and Part 135 Operations. The new Flight Operations Office houses the very latest in flight locating, scheduling and dispatch. Flight students receive flight training in accordance with FAR Part 141, saving time and money. Aviation students may also participate in Alpha Eta Rho - an international professional co-ed fraternity.

For More Information
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Department of Applied Engineering and Technology
307 Whalin Complex, Room 245
Eastern Kentucky University
521 Lancaster Avenue
Richmond, KY 40475-3102
**Department of Applied Engineering and Technology**  
**School of Applied Arts and Technology**  
**College of Business & Technology (2015-16)**

### Suggested Curriculum Guide for JCTC AA degree and EKU Aerospace Technology (AT) Concentration - Aviation Maintenance Technology

#### Freshman (1st Semester) 16 hrs
- ATE 100 Aviation Math (1 hr)
- ATE 103 Intro to Aircraft Maintenance I
- ATE 104 Intro to Aircraft Maintenance II
- ATE 106 Intro to Aircraft Maintenance III
- ATE 108 Intro to Aircraft Maintenance IV
- GE Math (GE 2 Mat 107 or higher at EKU)

#### Sophomore (1st Semester) 15 hrs
- ATE 222 Aircraft Systems I
- ATE 224 Aircraft Systems II
- ATE 226 Aircraft Systems III
- ATE 228 Aircraft Systems IV
- GE Science (GE 4B PHY 101 at EKU)

#### Sophomore (2nd Semester) 15 hrs
- ATE 242 Aircraft Power Plants I
- ATE 244 Aircraft Power Plants II
- ATE 246 Aircraft Power Plants III
- ATE 248 Aircraft Power Plants IV
- GE Humanities (GE 3B Humanities at EKU)

#### Junior (1st Semester) 15 hrs Bridge
- GE 1C CMS 100 Oral Communication
- GE Wellness
- GE 6A Diversity
- TEC 161 Computer Systems
- GE 1B+ ENG 102

#### Senior (1st Semester) 15 hrs-EKU only
- AVN 315 Human Factors in Flight Safety
- AVN 340 Air Transportation
- AVN 360 Problems in Aviation
- AVN 410 Air Traffic Control

#### Freshman (2nd Semester) 15 hrs
- ATE 202 Aircraft Structures I
- ATE 204 Aircraft Structures II
- ATE 206 Aircraft Structures III
- ATE 208 Aircraft Structures IV
- GE Writing I (GE 1A ENG 101 at EKU)

#### Sophomore (2nd Semester) 15 hrs
- ATE 202 Aircraft Structures I
- ATE 204 Aircraft Structures II
- ATE 206 Aircraft Structures III
- ATE 208 Aircraft Structures IV
- GE Writing I (GE 1A ENG 101 at EKU)

#### Sophomore (3rd Semester) 15 hrs
- ATE 252 Aircraft Power Plant Systems I
- ATE 254 Aircraft Power Plant Systems II
- ATE 256 Aircraft Power Plant Systems III
- ATE 258 Aircraft Power Plant Systems IV
- GE Social Interaction (GE 5B ECO 230 Principles of Economics I at EKU)

#### Junior (3rd Semester) 13hrs-EKU only
- BTS 300 Bus & Tech Seminar (0)
- GEO 315 Meteorology or AVN 335 Weather Reporting/Analysis
- AVN 150 Introduction to Aviation
- MGT 301 Principles of Management
- AVN 192 Private Pilot Ground (4)

#### Senior (3rd Semester) 0 hrs-EKU only

### Eastern Kentucky University (EKU) BS Aviation-Aviation Technology - junior* through senior years

#### Junior (1st Semester) 15 hrs Bridge
- GE 3A Arts
- GE 4A Natural or Lab Life Science
- GE 6B Diversity
- STA 215 Intro to Statistical Reasoning
  (Prereq - All developmental requirements)
- GE 5A Historical Perspective

#### Senior (2nd Semester) 15 hrs-EKU only
- AVN 370 Techniques: Aviation Supervisors
- AVN 390 AV Admin Decision Making
- AVN 401 Airline Management
- AVN 402 Corporate and Business Aviation
- AVN 460 Aviation Legislation
- BTS 400 Bus & Tech Seminar (0 credit)
- AVN 467 Exit Exam (0 credit)

#### Junior (2nd Semester) 15 hrs Bridge
- GE 3A Arts
- GE 4A Natural or Lab Life Science
- GE 6B Diversity
- STA 215 Intro to Statistical Reasoning
  (Prereq - All developmental requirements)
- GE 5A Historical Perspective

#### Senior (3rd Semester) 0 hrs-EKU only

### Total credits
- Jefferson KCTCS=76 (*47 credits are applicable to EKU BS Aviation-Aerospace Technology Option, with 41 LD and 6 UD)*
- Bridge (KCTCS or EKU)=30
- EKU only=43 (7 LD and 36 UD)*
- 47+30+43=120 semester hours

#### To receive a baccalaureate degree from EKU, a minimum of 30 semester hours must be completed at EKU and 42 credit hours must be in courses of 300 level or higher (Upper Division-UD).

### UNIVERSITY REQUIREMENTS

#### EKU Only Course Requirements:
- AVN 150, 192 (4), 315, 340, 350, 360, 370, 390, 401, 402, 410, 460, 467 (0); GEO 315 OR AVN 335; BTS 300 (0), 42 credit hours
- Total EKU only credits ................................................................. 43
- Total EKU degree equivalent credits ........................................... 120

### CREDIT SUMMARY

#### JCTC Equivalent EKU credits .................................................. 47
#### Bridge Credits taken at either institution .................................. 30
#### EKU only credits ................................................................. 43

#### Upper division Hours=36; Request a waiver of 6 upper division hours for equivalency credits awarded for AVN 325 and AVN 435.

#### Total equivalent degree credits ........................................... 120

**Note:** Because only 47 of Jefferson’s 76 Credits could be applied toward the EKU Aerospace Technology degree concentration, students will actually take more total credits to complete this degree.

**Note:** Students must take an Aviation exit examination, AVN 467, before graduation. Also, one 3-credit course from the Gen Ed requirements must be a Writing Intensive course with a suffix of “W.” Proflight students may elect to replace the flight instructor sequence with 3 AVN elective credits and still graduate. However, those interested in receiving the new “1000-hour power” R-ATP certificate must take AVN 421 from that sequence, at least one flight lab, i.e., AVN 416A, and another 3 credit AVN elective course. Additionally, AVN 470 must be taken by proflight students seeking the new 1000-hour Restricted ATP certification.

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