



Department of Applied Engineering and Technology  
*School of Applied Arts and Technology*  
College of Business & Technology (2015-16)

## Aviation B.S. Degree

Aerospace Technology (AT) Concentration

*2+2 Agreement: Ashland 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 139). 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

*EKU Aviation*

859-622-1014

[www.aviation.eku.edu](http://www.aviation.eku.edu)

email: [fly@eku.edu](mailto:fly@eku.edu)

Department of Applied Engineering and Technology

307 Whalin Complex, Room 245

Eastern Kentucky University

521 Lancaster Avenue

Richmond, KY 40475-3102



**Suggested Curriculum Guide for ACTC AA degree and ECU Aerospace Technology (AT)  
 Concentration – Professional Flight Program**

**Freshman (1<sup>st</sup> Semester) 18 hrs**

BIO 113 *science lab* (1 hr) (ACTC)  
 AVN Technical Elective (4)  
 AVN Technical Elective (1)  
 CIT 105 (ACTC)  
 KHP 230 or NFS 101 (ACTC)  
 ENG 101 (ACTC)  
 HIS 108 (ACTC)

**Sophomore (1<sup>st</sup> Semester) 18 hrs**

AVN Technical Elective  
 AVN Technical Elective  
 STA 215, 220, or 291 (ACTC)  
 PHY 171 or higher (ACTC)  
 ECO 201 (ACTC)  
 Any AH, SB, Foreign Language (ACTC)

**Junior (1<sup>st</sup> Semester) 13 hrs**

AVN 150 Introduction to Aviation  
 AVN 192 Private Pilot Ground (4)  
 AVN 315 Aviation Safety Programs  
 AVN 325 Aircraft Systems

**Senior (1<sup>st</sup> Semester) 12 hrs**

AVN 340 Airport Administration OR AVN 330 Human Factors & Crew Resource Management\*  
 AVN 390 Aviation Administration Decision Making OR AVN 470\* National Air Space System  
 AVN 402 Corporate & Business [Satisfies University Aviation *Applied Critical and Creative Thinking (ACCT)* requirement]  
 AVN 410 Air Traffic Control

**Freshman (2<sup>nd</sup> Semester) 18 hrs**

AVN Technical Elective  
 AVN Technical Elective  
 ENG 102 (ACTC)  
 COM 181 or COM 252 (ACTC)  
 MAT 150 (ACTC)  
 BIO 112 (ACTC)

**Sophomore (2<sup>nd</sup> Semester) 18 hrs**

AVN Technical Elective  
 AVN Technical Elective  
 AVN Technical Elective  
 ART 100, MUS 100, or ENG 161 (ACTC)  
 REL 130, HUM 202, or ENG 282 (ACTC)  
 Any AH, SB, Foreign Language (ACTC)

**Junior (2<sup>nd</sup> Semester) 12 hrs**

AVN 350 Air Transportation  
 AVN 360 Problems in Aviation Administration OR AVN 425 Applied Aerodynamics\*  
 BTS 300 Professional Skills Seminar (0 credit)\*\*\*  
 GEO 251 (ACTC)  
 MGT 301 Principles of Management (or MGT 300 only if business minor/major) 0

**Senior (2<sup>nd</sup> Semester) 12 hrs**

AVN 370 Techniques: Aviation Supervisors  
 AVN 401 Airline Management  
 AVN 435 Turbine Aircraft Systems  
 AVN 460 Aviation Legislation  
 AVN 467 Comprehensive Exam for BS in Aviation (0)  
 BTS 400 College to Careers Seminar (0 credit)\*\*\*

\* AVN 330, 425, and 470 must be taken by students interested the FAA "1000-hour power" R-ATP certificate

**UNIVERSITY REQUIREMENTS**

**EKU Only Course Requirements:**

AVN 150, 315, 325, 340 OR 330\*, 350, 360 OR 425\*, 370, 390 OR 470\*, 401, 402, 410, 435, 460, 467 (0); BTS 300 (0), 400 (0); MGT 301.

\*AVN 330, 425, and 470 must be taken by students interested in the FAA "1000-hour power" R-ATP certificate.

Total ECU only credits ..... 42

**Total ECU degree equivalent credits..... 120**

**CREDIT SUMMARY**

ACTC Equivalent ECU credits..... 53

Bridge Credits taken at either institution ..... 25

EKU only credits ..... 42

EKU Upper division credits = 42 (39 from above plus 3 for GEO 315/AVN 335 equivalent transfer credit from ACTC)

**Total equivalent degree credits ..... 120**

**Note:** Only 53 of ACTC's 60 Credits can be applied toward the ECU Aerospace Technology degree concentration. Thus, students will complete more than 120 total credits to complete the BS 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 5 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.