Minutes West Virginia University Faculty Senate Monday, November 10, 2014

1. Faculty Senate Chair, Jennifer Orlikoff, called the meeting to order at 3:15 p.m. in the Ruby Grand Hall, Erickson Alumni Center.

Members Present:

Ameri, S.	Crosno, J.	Harner, J.	Merrifield, J.	Sowards, A.
Atkins, C.	Davari, A.	Harris, T.	Montgomery-Downs, H.	Sperow, M.
Bass, A.	Davis, D.	Hartley, D.	Mucino, V.	Srivastava, A.
Bastress, R.	Deshler, J.	Hauser, D.	Murphy, E.	Stolzenberg, A.
Bergner, G.	DiBartolomeo, L.	Hileman, S.	Nutter, R.	Tou, J.
Bonner, D.	Dietz, M.	Hornsby, G.	Orlikoff, J.	Turton, R.
Boone, D.	Donley, D.	Hostuttler, L.	Peace, G.	Valenti, M.
Bowen, E.	Elmore, S.	Ibrahim, M.	Petty, T.	Vester, M.
Brazaitis, M.	Eschen, E.	Jacknowitz, A.	Proudfoot, C.	Vona-Davis, L.
Brock, R.	Etheredge, S.	Jaczynski, J.	Prudhomme, J.	Walter, S.
Brooks, R.	Famouri, P.	Johnstone, R.	Reddy, R.	Waterson, R.
Bryner, R.	Ferrara, L.	Kale, U.	Regier, M.	Weed, S.
Campbell, L.	Finkel, M.	Lofaso, A.	Riedel, B.	Weihman, L.
Claycomb, R.	Garrett, V.	Mandich, M.	Rockett, I.	Wilcox, G.
Clement, D.	Giacobbi, P.	Matak, K.	Rowlands, A.	Yang, H.
Connors, J.	Gilleland, D.	Maynor, L.	Ruscello, D.	
Cottrell, L.	Graves, C.	Mays, M.	Ryan, K.	
Cronin, A.	Haines, K.	McCusker, B.	Sherlock, L.	
Members Excus	sed:			
Anderson, K.	Downes, M.	Johnston, A.	Murray, P.	Utzman, R.
Attaallah, A.	Fint-Clark, R.	Kirby, B.	Salm, A.	
Baldwin, C.	Funk, A.	Kleist, V.	Sand-Jecklin, K.	
Billings, H.	Hutson, Z.	McTeer, M.	Tveter, K.	
Members Abser	<u>nt:</u>			
Abate, M.	Griffith, R.	Li, B.	Perna, N.	Tippets, W.
Balian, A.	Hitt, L.	Lively, M.	Rishel, C.	Whiteman, C.
Burnside, J.	Insch, G.	Lorimer, D.	Sadler, J.	
Cohen, S.	Kromar, R.	Miltenberger, M.	Scott, D.	
Faculty Senate	Officers Present:	<u>.</u>		
DiBartolomeo, L. Nutter, R.	Orlikoff, J.	Proudfoot, C.	Stolzenberg, A.	Turton, R.

2. Chair Orlikoff moved for approval of the minutes from the October 6, 2014 meeting with an addendum to remove OEHS 628 from the deactivation list on the Alteration Report since it is not an existing course in Banner. <u>Motion carried</u>.

3. President Gee said the Board of Governors (BOG) is a cohesive and committed group of people that serve WVU; he appreciates Lisa DiBartolomeo and Robert Griffith for their service to the Board.

The President thanked Chairman of the Board, Jim Daily, for attending today's Faculty Senate meeting and invited him to come to the podium.

Chairman Daily said he appreciates the opportunity to work with some terrific faculty representatives; it is a great way to interact with the University. He thanked Professors DiBartolomeo and Griffith for serving on the BOG. He applauded them for their insight, and thanked them for representing the university and its faculty.

Chairman Daily said he is interested in both the university and its students. He met with nine WVU students over lunch as a "granddaddy" to listen to their interests and concerns.

President Gee said it was a great victory for the WVU football team to win over Baylor, but a disappointment at the same time due to the misbehaviors by some students. The President met with the student body leaders told them that this was their university, and that they needed to take it back. Some students have come to him with creative ideas that could help students be more responsible.

The President asked faculty to encourage students to be leaders and to be engaged and to try and understand the many cultural challenges that students face. Peer to peer resolution is important.

Last Tuesday, November 4th was Election Day, and West Virginia made a major electoral shift in the national and in state representatives. It moved from a "blue" to a "red state for the first time in eight decades. The WV legislature has republican majorities in both the Senate and the House. There will be significant changes in terms of leadership, and the President is optimistic about the opportunities to work with the Legislature. The university has reached out to the republican colleagues in hopes that the 1.8 million people who live in WV will have better opportunities.

Two days ago, it was announced that Senator Rockefeller's extraordinary senatorial papers, which extend over a 30 year period, will housed in West Virginia University's Charles C. Wise Library rather than in the Rockefeller family archives. WVU has one of the finest regional collections in the country, the President said, and we are thankful for the opportunity to include the Rockefeller papers in the collection.

Senator Rockefeller's visit was also an occasion to announce the John D. Rockefeller IV School of Policy and Politics in the Eberly College of Arts and Sciences. The School will create additional opportunities on a national scale, and will engage people in national and international activities.

The Pearl S. Buck collection will be housed at the West Virginia History Center at the WVU Libraries. Pearl Buck was a West Virginia native born in Hillsboro. She was one of two women to win the Nobel Prize for literature as well as a Pulitzer Prize. John Cuthbert

(Director, Downtown Campus Library) and his team have done a great job printing the papers so they can be available to faculty and students.

Last week it was announced that an exclusive due diligence agreement was reached to allow WVU to explore the possibilities of purchasing the facilities at the Mountain State University campus in Beckley, WV. If the purchase were to take place, it would give WVU the opportunity establish a stronger presence in the southern part of the state. The signing of due diligence does not mean that we have agreed to buy or purchase anything. It only means that it will allow the university to explore the academic and financial aspects. Narvel Weese will examine the financial possibilities and the Provost will investigate the academic program opportunities.

4. Provost McConnell reported the following:

The searches continue for:

- Vice President for Student Life
- Director of Internal Audit
- Vice President for the Office of Talent and Culture (previously called Human Resources)
- Dean of Arts and Sciences
- Dean of the College of Law
- Dean of Honors (a task force will reimagine what honors could be)
- Dean of Extension.

We continue to reach out to the academic folks in Athletics as we want to maintain an open and excellent relationship with them. We will meet on a regular basis to tackle any difficult issues that may arise, and we will continue to work closely with the athletic teams to maintain academic integrity and support.

She met with Marie Abate, Chair of the Faculty Welfare Committee, to discuss faculty concerns. The Provost said that she is in agreement with the issues identified by Dr. Abate.

On the academic side, "due diligence" means WVU is investigating academic possibilities in the southern part of the state. There have been concerns about what it would mean for WVU to move into that area. If it turns out that this is a good opportunity, we will compliment the programs that already exist as well as develop academic partnerships. An inventory is being done to see what needs exist and what other institutions offer. We are looking at graduate programs, which are currently not available in the southern part of the state. The Provost encouraged faculty to email her if they know of programs that would benefit students in this region.

The Provost reported that we are focusing on the academic mission and academic profile of our institution. Specifically, how do we, within the institution, view, value, and communicate our academics to our students and other stakeholders? We need to reclaim

our academic space and create a different kind of academic dialogue that conveys what kind of school we are.

The Provost attended the "Athletes Speak Out" session that was hosted by Professor Carolyn Atkins. She said it was wonderful, and encouraged faculty to attend future sessions because they are very inspiring.

5. A presentation was given by Randy Hudak, Assistant Vice-President of Facilities and Services and Stephanie Toothman, Interim Conservation Specialist for WVU's Facilities Management Recycling program. The presentation gave an overview of a new singlestream recycling and garbage management program that is being implemented at the university. To encourage increased recycling, faculty will be expected to take their office garbage and recyclables to conveniently-located central collection bins. A broader range of materials than currently recycled can be placed in a single recycling bin. The materials will be transported to an off-campus for sorting. The program is being implemented on the downtown campus this fall. Over winter break, the program will be introduced at the Mountainlair, Erickson Alumni Center and the Recreation Center. The program will be started on the Evansdale Campus in the spring. Systems will be designed for one building at a time since each building has its own unique challenges. Before a building is transitioned, meetings are held with the building and operation supervisors as well as deans and directors to discuss changes. Communication through email, flyers, E-news, etc., will occur so people are aware of the new program.

Energy savings as well as financial savings initiatives were discussed. An Energy Management plan will consist of educating and training individuals so buildings will be more energy efficient.

Several faculty members raised concerns about the new recycling and garbage program. They suggested that it was yet another drain on faculty time and effort and questioned whether the cost of lost faculty productivity on higher value tasks would be much greater than the savings from increased recycling and fewer janitorial workers. The presenters explained that collecting garbage from offices while requiring recycling to be brought to a central bin had led to a large quantity of recyclable material in the garbage stream. They clarified that faculty would not be expected to take laboratory or meeting room wastes to the central collection bins. Other faculty stated that if one combined a trip to the bins with other trips out of the office, the time spent taking materials to the central bins was negligible.

6. Chair Orlikoff reported that Richard Turton, FS Chair elect; Dixie Martinelli, staff council; Chris Nyden, SGA president and she visited Potomac State College on October 24. After a guided tour, they met with their counterparts over lunch. She suggested that it would be productive for WVU to examine the 2+2 arrangements, or pathways, that allow students to begin at Potomac State College and then transfer to WVU Morgantown. She asked faculty to consider how they could facilitate a pathway for POT students to easily

transfer to the Morgantown campus. This would help to demonstrate the one-WVU concept.

Chair Orlikoff attended the ACF meeting was held at the Mountwest Community and Technical College in Huntington, WV on October 9, 2014. Issues on the agenda included the transfer of credits between both 4 and 2-year institutions, reverse transfers, guaranteed gateway classes for homogeneity within the state, and guided pathways for curricular advising.

Chair Orlikoff said that last weekend, 32 graduate students were able to participate in the Peer Advocate Training Program organized by WELLWVU thanks to a grant received from the Department of Justice.

The Peer Advocate Training Program is designed to train (fellow students) to help victims of sexual assault. The trainers included: sexual assault nurses, Title IX officers, police officers, counselors, lawyers, the director of the Rape and Domestic Information Center, and a representative from the WV Foundation for Rape Information and Services. The Peer Advocate serves as a conduit of resources for victims.

The Retirees Association announced their "Luck on Athletics Presentation." Oliver Luck, Director of Intercollegiate Athletics and Associate Vice President, will be speaking about athletics on Thursday, November 13th from 3:00 p.m. - 4:30 p.m. in room 172, Coliseum. All are welcome to attend; RSVP to retirees@mail.wvu.edu.

 Jim Harner, Chair, Senate Curriculum Committee, moved that the Faculty Senate rescind the deactivation of PATH 775, which was approved by the Faculty Senate on October 6, 2014. The course is a required course for another unit, which was not realized at the time. The motion was seconded. <u>Motion carried</u>.

Chair Harner moved for approval of the following reports.

Annex I, New Courses Report. <u>Motion carried</u>. Annex II, Alterations Report. <u>Accepted.</u> Annex III, B. S. Degree in Aviation Management from WVU-Tech. <u>Motion carried</u>.

Chair Harner said a Transparency subcommittee from the Curriculum Committee has been put in place to develop guidelines for approving courses. A report will be forthcoming.

8. Lena Mayor, Chair, General Education Curriculum Oversight Committee, moved for approval of the following reports:

Annex IV, GEC Actions. <u>Motion carried</u>. Annex V, GEC Audits. <u>Accepted.</u>

9. David Fryson, Vice President for Diversity, Equity and Inclusion provided an update on Title IX and other diversity initiatives.

- 10. Alison Tartaglia, Project Coordinator for Campus Safety Grant, and Colleen Harshbarger, Director of the Office of Wellness and Health Promotion, discussed violence prevention and other student wellness and health promotion programs. Annex VI, Annex VII, and Annex VIII.
- 11. Roy Nutter, ACF representative thanked Chair Orlikoff for attending the October ACF meeting. He said the legislature and HEPC will meet next week.
- 12. Lisa DiBartolomeo said a BOG meeting and retreat was held on October 30 and 31, 2014 in Morgantown. On Thursday a joint meeting of the finance and facilities and revitalization committee was followed by dinner at Blaney House. On Friday the Board met to discuss textbook affordability and approved the MA in Music Industry and the MS in Biostatistics. Narvel Weese reported to the Board that University finances are fine, but no money is available for raises.
- 13. A motion was made and duly seconded that the Executive Committee move into Executive Session under West Virginia Code § 6-9A-4 under 2b to discuss a matter relating to an honorary degree, scholarship, prize, or similar award. <u>Motion carried</u>.
- 14. The Senate moved from Executive into regular session. No new business items were raised. The meeting adjourned at 5:55 p.m.to reconvene on Monday, December 8, 2014.

Barbara Dunn, Administrative Secretary Sr., Faculty Senate Office

To: Senate Executive Committee

From: Jim Harner, Chair Senate Curriculum Committee

Date: October 27, 2014

Re: New Course Report

Title	College	Credits	Prerequisites	Course Description	Curriculum Based Rationale
BIOL 476: Computational Neuroscience	Arts and Sciences	4	BIOL 348 or consent	Tools and concepts used to probe and characterize the dynamics of neurons, neural networks and neural coding mechanisms. Lectures introducing concepts and discussion sessions focusing on current research literature complement computer laboratories where the student learns programing skills, analytical tools and neural modeling methods used in computational neuroscience research.	This course is part of a new expanded curriculum in neuroscience. Computational neuroscience is one of the most important new research approaches in the study of brain functions. It has become an essential element of any well trained neuroscientist's skill-set and can also be useful to anyone trying to quantitatively characterize the dynamics of living processes.
WGST 260: Perspectives on Lesbian, Gay, Bisexual, Transgender and Queer (LGBTQ) Studies	Arts and Sciences	3		Overview of lesbian, gay, bisexual, transgender, and queer studies. Examines the construction of gender, biological sex, sexual orientation, and gender identity, expression and performance related to lesbian, gay, bisexual, transgender, queer, questioning, intersex, asexual, pansexual, and two-spirit identities. Also examines intersections with race, ethnicity, class, nation, culture, ability, and religion.	This new course addresses what is both a perceived gap in our own current curriculum as well as a growing area of inquiry within women's, gender and sexuality studies. Given the interdisciplinary nature of our field, many of the courses that fulfill requirements for both our major and minor come from other disciplines and departments. While many of these courses explore a variety of narrow areas of inquiry within lesbian, gay, bisexual, transgender and queer studies, there currently is no introductory or survey course that provides a foundation. This course serves as that foundation. Also, in the Center for Women's and Gender Studies most recent Strategic Plan we have identified a need to strengthen our curricular offerings in LGBTQ studies and we plan to develop a new minor in this area; this new course will serve as the cornerstone requirement for that proposed minor.
ENGL 238: Literature of	Arts and			Topics in the study of the literature of place in a historical,	Literature and the environment is a growing and important subdivision of literary studies. This course will be the first of a number of courses that focus on reading and writing about place/environment now in the conceptual stage. The English department has already piloted this rotating seminar as a special topics course, which is now a permanent course, "BIOL 318: Writing Appalachian Ecology."
Flace	Sciences				
ENTR 300: Creativity and Idea Generation	Business and Economics	3		This course is about enhancing your personal creativity: seeing what others do not see, thinking what others do not think; coming up with new ideas.	Although we teach entrepreneurship courses on how to do a market analysis, feasibility studies, and business plans, we miss the first step in the processcoming up with the idea. This course focuses on increasing students creativity and ability to come up with innovative ideas.
FIN 485: Advanced Topics in Financial Planning	Business and Economics	4	ACCT 473	Advanced topics in financial planning including synthesis of income tax planning, investments, insurance planning, estate planning, and retirement planning into a comprehensive, application driven process.	This course is required as part of the course work for the Certified Financial Planning track within the Department of Finance. This course provides students an opportunity to synthesize previous finance course work in an integrative, case-based course in financial planning.

Title	College	Credits	Prerequisites	Course Description	Curriculum Based Rationale
C&I 643: Brain-Based Teaching & Learning	Education and Human Services		3	This course provides an integrative, interactive, and collaborative introduction to the emerging interdisciplinary field of brain-based teaching and learning. Through synchronous and asynchronous classroom discussions and applied exercises, students will draw on knowledge from neuroscience, cognitive psychology, biology, and education to explore the theoretical foundations, methods, and applications of teaching and learning from a brain-based perspective.	Currently, no course exists which focuses primarily on what has been recently been learned about how the human brain functions and learns based on research in the fields of neuroscience, cognitive science, and biology. This knowledge provides strong support for the student-centered teaching strategies which the students are learning in other Education and Curriculum & Instruction courses. This course is intended to serve as an elective for the Benedum 5-year teacher education program, the advanced online master's program in Curriculum & Instruction, and the Ed.D. program in Curriculum & Instruction. The course has been taught during the Spring 2013 and Spring 2014 semesters and students have reported that they've found the course information and activities to be quite valuable in terms of understanding how humans learn and how this understanding can be utilized to design effective instruction.
LAW 636: Copyright Law	Law		3	This course covers the basics of copyright, including copyrightable subject matter, formalities and copyright registration, and the substantive and procedural elements of infringement and defenses. Technological developments affecting copyright are also addressed (software/internet)	This course has been approved by the Academic Planning Committee at the College of Law. In Copyright Law we discuss basic procedural issues such as what is necessary to obtain a copyright, as well as advanced substantive issues such as infringement, defenses, and copyrightable subject matter. Copyright Law is one of the three pillars of intellectual property (along with Patent Law and Trademark Law). Any student who wishes to pursue a career in intellectual property will find it necessary to complete a course in copyright law. Additionally, because of rapid technological advances (for example: digital copies, peer-to-peer networks, internet streaming, and 3D printing) copyright law is rapidly evolving and adapting to these new techniques.
JRL 119: Reed College MDS Orientation	Media		3	This course offers an orientation to the Reed College of Media's MDS program, including program requirements, departmental resources, curriculum options, student responsibilities and opportunities.	This course, as a part of a new SOJ major curriculum in Multidisciplinary Studies will be a required course designed to allow students to explore the program and understand their options and responsibilities as Reed College MDS students.
IMC 638: Public Affairs	Media		3 IMC 610	This course explores ways to leverage public policy relationships and strategic partners to enhance an organization's brand and marketing strategy. Incorporates theory and real-world experience through examination of case studies.	This course is offered as an elective course for students within the Integrated Marketing Communications graduate program and seeks to prepare students who wish to pursue careers in public affairs. This course presents the field of IMC from the perspective of public officials, policy analysts, lobbyists and other public communicators

Title	College	Credits	Prerequisites	Course Description	Curriculum Based Rationale
AVIA 101. Private Pilot	WVU-Tech	3	Director Approval	Knowledge and skills necessary for a FAA private pilot certificate. Topics include aerodynamics, systems, regulations, airspace, performance, weather, flight publications, navigation basic flight physiology, and flight safety. Flight training to obtain a private pilot certificate.	The aviation management program provides flight training for pilots. This training starts at an introductory level, a point at which students have no flight experience, and progresses through FAA pilot certificates and ratings to the level of FAA commercial pilot with an instrument rating, single engine rating, and multi-engine rating. This is the minimum level FAA certification necessary to operate as a professional pilot. The proposed courses that correlate with these FAA pilot certificates and ratings are AVIA 101 Private Pilot, AVIA 181 Professional Field Experience, AVIA 201 Instrument Rating, AVIA 231 Commercial Pilot, AVIA 241 Multi-Engine Rating, AVIA 281 Professional Field Experience, and AVIA 381 Professional Field Experience. AVIA 101, 201, 231, and 241 are primarily theory courses while AVIA 181, 281, and 381 are primarily flight courses. The increasing course numbers of the Professional Field Experience courses reflect the increasing size, complexity and cost of the aircraft necessary for more advanced flight instruction. This course, AVIA 101 Private Pilot, in conjunction with AVIA 181 Professional Field Experience field. Experience, ave the first theory and flight courses in the Aviation Management curriculum. Completion of these courses will lead to the FAA private pilot certificate, which is the foundation to all subsequent flight training.
AVIA 181. Professional Field Experience	WVU-Tech	1-3	Director Approval	Flight training conducted in conjunction with AVIA 101, Private Pilot, is necessary to obtain a FAA private pilot certificate.	A required course in the Aviation Management program. The aviation management program provides flight training for pilots. This training starts at an introductory level, a point at which students have no flight experience, and progresses through FAA pilot certificates and ratings to the level of FAA commercial pilot with an instrument rating, single engine rating, and multi-engine rating. This is the minimum level FAA certification necessary to operate as a professional pilot. The proposed courses that correlate with these FAA pilot certificates and ratings are AVIA 101 Private Pilot, AVIA 181 Professional Field Experience, AVIA 201 Instrument Rating, AVIA 231 Commercial Pilot, AVIA 241 Multi-Engine Rating, AVIA 281 Professional Field Experience, and AVIA 381 Professional Field Experience. AVIA 101, 201, 231, and 241 are primarily theory courses while AVIA 181, 281, and 381 are primarily flight courses. The increasing course numbers of the Professional Field Experience courses reflect the increasing size, complexity and cost of the aircraft necessary for more advanced flight instruction. This course, in conjunction with AVIA 101, Private Pilot, are the first theory and flight courses in the Aviation Management curriculum. Completion of these courses will lead to the FAA private pilot certificate, which is the foundation to all subsequent flight training.
AVIA 201. Instrument Rating	WVU-Tech	4	Director Approval	Provides the knowledge required for an instrument rating. Includes instrument flight regulations, air traffic control system and procedures, instrument navigation and approaches, charts, weather, safety, aeronautical decision making, and crew resource management.	A required course in the aviation management program. It is offered in conjunction with AVIA 281 Professional Field Experience. It is an intermediate level course in the progression of flight related courses necessary to become a professional pilot. At the completion of the course the student will hold a FAA instrument rating.
AVIA 231. Commercial Pilot	WVU-Tech	4	Director Approval	Knowledge and skills required to obtain a FAA commercial pilot certificate. Topics include regulations, aerodynamics, meteorology, performance, pilotage, dead reckoning, navigation aids, aeronautical decision making, aircraft systems, night and high altitude operations, and commercial maneuvers.	A required course in the aviation management program. It is offered in conjunction with AVIA 281 Professional Field Experience. An intermediate level course in the progression of flight related courses necessary to become a professional pilot. At the completion of the course, the student will hold a FAA commercial pilot certificate.

Title	College	Credits	Prerequisites	Course Description	Curriculum Based Rationale
AVIA 241. Multi-Engine Rating	WVU-Tech	2		Provides the knowledge and skills necessary to safely and proficiently exercise the privileges and responsibilities of a multi-engine aircraft rating. Includes multi-engine aircraft systems, multi-engine aerodynamics, weight and balance, aircraft performance, and abnormal/emergency procedures.	A required course in the aviation management program. It is offered in conjunction with AVIA 381 Professional Field Experience. It is an intermediate level course in the progression of flight related courses necessary to become a professional pilot. At the completion of this course the student will hold a FAA multi-engine rating.
AVIA 281. Professional Field Experience	WVU-Tech	1-9	Director Approval	Flight training conducted in conjunction with most AVIA 200 level courses.	A required course in the aviation management degree. This course is the flight training component of AVIA 201 Instrument Rating and AVIA 231 Commercial Pilot. It is the intermediate level flight training necessary to obtain these certifications. Due to the increasing cost and complexity of the aircraft needed for this training, a different course number is used as compared to AVIA 181 Professional Field Experience.
AVIA 301. Principles of Aviation Instruction	WVU-Tech	3	Director Approval	Fundamentals of learning, lesson plans, and the teaching environment. Emphasis on the organization, composition, and presentation of lessons to individuals and groups in preparation for Fundamentals of Instruction knowledge examination and flight instructor practical tests.	This course is an elective course in the aviation management program. It is a course for individuals interested in aviation instruction, including those interested in obtaining the FAA ground instructor certificates but not interested in the flight instructor courses.
AVIA 302. Initial Flight Instructor	WVU-Tech	3	Director Approval	Provides the knowledge and skills necessary to conduct flight and ground instruction. Includes subject areas necessary for a private and commercial pilot training, intensive instruction and practice in lesson plans, in-flight instruction, debriefing, and analysis.	This is an elective course in the aviation management program. Newly certificated commercial pilots with minimal flight experience have limited options available to build flight experience toward the FAA minimum requirement of the 1500 flight hours necessary to work as an airline pilot. A common option is to obtain additional FAA certification as a flight instructor. This qualification allows access to entry level employment at flight schools while it refines the aeronautical knowledge and flight skills of the instructor. AVIA 302 Initial Flight Instructor, AVIA 304, Instrument Flight Instructor, AVIA 306 Advanced Flight Instructor, and AVIA 381 Professional Field Experience are the courses that correlate to the Flight Instructor certificate with a single engine rating, multi-engine rating, and instrument rating. AVIA 302 Initial Flight Instructor, in conjunction with AVIA 381 Professional Field Experience are the courses that correlate to the Flight Instructor certificate to earn the FAA certification of flight instructor.
AVIA 304. Instrument Flight Instructor	WVU-Tech	2	Director Approval	A study of the material required to teach the instrument rating combined with a study of teaching responsibilities and techniques. Topics include regulations, air traffic control, navigation, instrument approach procedures, weather, ADM, and CRM.	This is an elective course in the aviation management program. Newly certificated commercial pilots with minimal flight experience have limited options available to build flight experience toward the FAA minimum requirement of the 1500 flight hours necessary to work as an airline pilot. A common option is to obtain additional FAA certification as a flight instructor. This qualification allows access to entry level employment at flight schools while it refines the aeronautical knowledge and flight skills of the instructor. AVIA 302 Initial Flight Instructor, AVIA 304, Instrument Flight Instructor, AVIA 306 Advanced Flight Instructor, and AVIA 381 Professional Field Experience are the courses that correlate to the Flight Instructor certificate with a single engine rating, multi-engine rating, and instrument rating. AVIA 304 Instrument Flight Instructor, in conjunction with AVIA 381, Professional Field Experience are the courses required to earn the FAA rating as an instrument flight instructor. This allows the holder to conduct flight instruction toward the instrument rating.

Title	College	Credits	Prerequisites	Course Description	Curriculum Based Rationale
AVIA 306. Advanced Flight Instructor	WVU-Tech	1	Director Approval	Provides the knowledge and skills necessary for adding an additional aircraft rating to the flight instructor certificate. Includes aircraft limitations & specifications, flight training differences, safety factors, effective evaluations, and flight instructor responsibilities.	This is an elective course in the aviation management program. Newly certificated commercial pilots with minimal flight experience have limited options available to build flight experience toward the FAA minimum requirement of the 1500 flight hours necessary to work as an airline pilot. A common option is to obtain additional FAA certification as a flight instructor. This qualification allows access to entry level employment at flight schools while it refines the aeronautical knowledge and flight skills of the instructor. AVIA 302 Initial Flight Instructor, AVIA 304, Instrument Flight Instructor, AVIA 306 Advanced Flight Instructor, and AVIA 381 Professional Field Experience are the courses that correlate to the Flight Instructor certificate with a single engine rating, multi-engine rating, and instrument rating. AVIA 306 Advanced Flight Instructor, in conjunction with AVIA 381 Professional Field Experience are the courses that correlate to the flight schools engine rating at the structor. This allows the holder to conduct flight instruction toward the multi-engine rating.
AVIA 351. Crew Resource Management	WVU-Tech	3	Director Approval	A study of human interactions that affect the safety of flight. Coursework emphasizes crew coordination, situational awareness, communication, workload management, decision making, and human error management essential to the safe operation of a professional crew.	This is an elective course in the aviation management program. With the increasing automation in aircraft cockpits and advances in airframe and engine technology flight operations have moved from a skills based model to cognitive based model. With this change has come an increasing importance in the need to manage the increasing number and type of resources available to the crew. This course is of particular value to students interested in working in complex multi-pilot environments.
AVIA 352. ATP/Turbine Aircraft Operations	WVU-Tech	3	Director Approval	This course includes an in-depth study of regional jet systems, FMS navigation, airline-level crew resource management and airline standard operating procedures. The topics covered apply to many regional jet aircraft and some turbo prop aircraft.	This is an elective course in the aviation management degree. AVIA 352 ATP/Turbine Aircraft Operations is a course to meet the requirements of the FAA's updated Airline Transport Pilot certification requirements. It will not be suitable for all students, as it will require students to acquire at least 1000 and up to 1500 flight hours before they will be eligible to enroll in the course. It will be taught in conjunction with the WVU Tech approved flight training provider. The Airline Transport Pilot certificate is required to work for any U.S. airline.
AVIA 380. Aviation Weather	WVU-Tech	3	8	A study of weather as it relates to aviation, with emphasis on weather concepts, reporting systems, forecasting systems, hazards, weather and flight planning, weather in relation to aircraft performance, and weather reporting hardware and software.	This is a required course in the aviation management program. The Federal Aviation Administration published Advisory Circular AC No: 61-139 on 7/12/13. This document "provides instructions for institutions of higher education on how to obtain authority to certify students who graduate from the institutions degree program with an aviation major" in order for those graduates to qualify for a reduction in the flight time requirements to apply for a restricted Airline Transport Pilot certificate, allowing those individuals to qualify for airline employment will up to 500 fewer flight hours than the standard FAA requirement. Among the requirements included in this document is a mandate to include a course in aviation weather in the curriculum. This course is designed to meet that requirement.

Title	College	Credits	Prerequisites	Course Description	Curriculum Based Rationale
AVIA 381. Professional Field	W/ULTech	1.0	Director	Flight training conducted in conjunction with AVIA 241 and	This is an elective course in the aviation management degree. AVIA 381 is the flight training component of AVIA 241 Multi-Engine Rating AVIA 302 Instrument Rating and AVIA 304 Instrument Flight Instructor and AVIA 306 Advanced Flight Instructor. It is the advanced level flight training necessary to obtain the EAA certifications associated with these courses
AVIA 382. Aerodynamics and Aircraft Performance	WVU-Tech	1-9		A study of the fundamental principles of aerodynamics and aircraft performance. Includes terminology, the four forces of flight, aerodynamic stall, stability and control, weight and balance, and flight at slow, transonic, and supersonic speeds.	This is a required course in the aviation management program. The Federal Aviation Administration published Advisory Circular AC No: 61-139 on 7/12/13. This document "provides instructions for institutions of higher education on how to obtain authority to certify students who graduate from the institutions degree program with an aviation major" in order for those graduates to qualify for a reduction in the flight time requirements to apply for a restricted Airline Transport Pilot certificate, allowing those individuals to qualify for airline employment will up to 500 fewer flight hours than the standard FAA requirement .Among the requirements included in this document is a mandate to include a course in aerodynamics and aircraft performance in the curriculum. This course is designed to meet that requirement .Aerodynamics and Aircraft Performance provides an in-depth study of aerodynamics and aircraft performance, including a review of material previously learned in other aviation theory courses and delving much deeper into these important subjects.
AVIA 383. Aircraft Systems	WVU-Tech	3		A detailed study of basic and advanced aircraft systems, including piston and turbine power plants, electrical, hydraulic, fuel, lubrication, pneumatic, ignition, pressurization, landing gear, environmental, fire detection/extinguishing, flight control, and brake systems.	This is a required course in the aviation management program. The Federal Aviation Administration published Advisory Circular AC No: 61-139 on 7/12/13. This document "provides instructions for institutions of higher education on how to obtain authority to certify students who graduate from the institutions degree program with an aviation major" in order for those graduates to qualify for a reduction in the flight time requirements to apply for a restricted Airline Transport Pilot certificate, allowing those individuals to qualify for airline employment will up to 500 fewer flight hours than the standard FAA requirement. Among the requirements included in this document is a mandate to include a course in aircraft systems in the curriculum. This course is designed to meet that requirement.
AVIA 385. Air Traffic Control and Airspace	WVU-Tech	3		A study of the national airspace system and air traffic control, includes an the US air traffic control system, communication systems, ATC procedures, regulations, navigational equipment, tower operations, TRACON and center operations, and environmental issues.	This is a required course in the aviation management degree. The Federal Aviation Administration published Advisory Circular AC No: 61-139 on 7/12/13. This document "provides instructions for institutions of higher education on how to obtain authority to certify students who graduate from the institutions degree program with an aviation major" in order for those graduates to qualify for a reduction in the flight time requirements to apply for a restricted Airline Transport Pilot certificate, allowing those individuals to qualify for airline employment will up to 500 fewer flight hours than the standard FAA requirement. Among the requirements included in this document is a mandate to include a course in aviation weather in the curriculum. This course is designed to meet that requirement.

Title	College	Credits	Prerequisites	Course Description	Curriculum Based Rationale
AVIA 484. Aviation Safety	WVU-Tech	3	3	Provides practical guidance on aircraft command techniques used during routine and unexpected situations. Includes the role of the captain, characteristics of effective leaders, judgment and decision skills, management of resources, communication techniques, and emergency situations.	This is a required course in the aviation management program. The Federal Aviation Administration published Advisory Circular AC No: 61-139 on 7/12/13. This document "provides instructions for institutions of higher education on how to obtain authority to certify students who graduate from the institutions degree program with an aviation major" in order for those graduates to qualify for a reduction in the flight time requirements to apply for a restricted Airline Transport Pilot certificate, allowing those individuals to qualify for airline employment will up to 500 fewer flight hours than the standard FAA requirement. Among the requirements included in this document is a mandate to include a course in aviation weather in the curriculum. This course is designed to meet that requirement.
AVIA 487. Aviation Security	WVU-Tech	3	Director	Presents basic information on security issues and concerns in the aviation industry. It includes the historical aspects of aviation security, information on current security operations and information on the security tools used within the industry.	This is an elective course in the aviation management program. Aviation Security is a course well suited for individuals interested in airline managerial roles, as security concerns have a significant role in planning the routine and emergency management of flight operations. It may also be of interest as an elective to students interested in criminal justice or law.

To: Faculty Senate Executive Committee

From: Matthew Valenti, SCC Chair Elect

Date: October 27, 2014

RE: Alterations Report

	bject code.		Effective Term: Summer 2015	
Subject Code	Action	Rationale		
EDHS	Create new	Prefix is for those education and		
	subject code	human services courses designed for		
		the MDS degree program in the		
		College of Education and Human		
		Services		
Action: Course	Alterations (Minor	Changes).	Effective Term: Summer 2015	
Title	Action	Old Course Description	New Course Description	Course Curriculum Based Rationale
COUN 665	Change title.	COUN 665. Abnormal Behavior. 3	COUN 665. Diagnosis and Treatment	This title more accurately reflects the
		Hours. PR: COUN 536 and COUN 606.	Planning. 3 Hours. PR: COUN 536 and	course content. Many state licensing
		Framework for exploring the range of	COUN 606. Framework for exploring	boards require a course with this title
		personality and behavioral disorders	the range of personality and	so this makes it much easier for our
		as described in the DSM-IV-TR. Focus	behavioral disorders as described in	students when they apply for licensure.
		on: descriptive criteria, etiology,	the DSM. Focus on: descriptive	
		assessment, diagnosis, multicultural	criteria, etiology, assessment,	
		considerations, psychotropic	diagnosis, multicultural	
		treatments of, and understanding of	considerations, psychotropic	
		the major diagnostic categories.	treatments of, and understanding of	
			the major diagnostic categories.	

DISB 482	Change grading	DISB 482. Disability in the	DISB 482. Disability in the	This course was approved with
	mode to P/F.	Community. 2 Hours. PR: Consent.	Community. 2 Hours. PR: Consent.	Satisfactory/Unsatisfactory grading as
		This course offers service learning	This course offers service learning	indicated in the current course
		experiences in the community with	experiences in the community with	description. When the
		persons who have a disability.	persons who have a disability.	Satisfactory/Unsatisfactory option was
		(Grading will be	(Grading will be Pass/Fail).	eliminated, it was not clear that it
		satisfactory/unsatisfactory).		would convert automatically to Normal
				Grading Mode. This alteration is
				proposed to realign the course grading
				mode and description to use Pass/Fail
				to be consistent with the original
				intent for the course and reflect the
				current terminology.
DISB 486	Change grading	DISB 486. Capstone	DISB 486. Capstone	This course was approved with
	mode to P/F.	Portfolio:Disability. 1 Hour. This	Portfolio:Disability. 1 Hour. This	Satisfactory/Unsatisfactory grading as
		undergraduate capstone for the	undergraduate capstone for the	indicated in the current course
		interdisciplinary certificate program	interdisciplinary certificate program	description. When the
		in disability studies culminates with a	in disability studies culminates with a	Satisfactory/Unsatisfactory option was
		written essay, a presentation, and a	written essay, a presentation, and a	eliminated, it was not clear that it
		portfolio. (Grading will be	portfolio. (Grading will be Pass/Fail).	would convert automatically to Normal
		Satisfactory/Unsatisfactory).		Grading Mode. This alteration is
				proposed to realign the course grading
				mode and description to use Pass/Fail
				to be consistent with the original
				intent for the course and reflect the
				current terminology.

DISB 682	Change grading	DISB 682. Disability and the	DISB 682. Disability and the	This course was approved with
	mode to P/F.	Community. 2 Hours. This course	Community. 2 Hours. This course	Satisfactory/Unsatisfactory grading as
		offers service learning experience in	offers service learning experience in	indicated in the current course
		the community with persons who	the community with persons who	description. When the
		have a disability. (Grading will be	have a disability. (Grading will be	Satisfactory/Unsatisfactory option was
		s/U.).	Pass/Fail).	eliminated, it was not clear that it
				would convert automatically to Normal
				Grading Mode. This alteration is
				proposed to realign the course grading
				mode and description to use Pass/Fail
				to be consistent with the original
				intent for the course and reflect the
				current terminology.
DISB 686	Change grading	DISB 686. Graduate	DISB 686. Graduate	This course was approved with
	mode to P/F.	Capstone: Disability. 1 Hour. This	Capstone: Disability. 1 Hour. This	Satisfactory/Unsatisfactory grading as
		capstone experience for the	capstone experience for the	indicated in the current course
		certificate in disability studies at the	certificate in disability studies at the	description. When the
		graduate level culminates with an	graduate level culminates with an	Satisfactory/Unsatisfactory option was
		essay, a presentation, and a	essay, a presentation, and a	eliminated, it was not clear that it
		portfolio. (Grading wil be S/U.).	portfolio. (Grading wil be Pass/Fail).	would convert automatically to Normal
				Grading Mode. This alteration is
				proposed to realign the course grading
				mode and description to use Pass/Fail
				to be consistent with the original
				intent for the course and reflect the
				current terminology.

HIED 654	Change prefix.	EDLS 654. College Student Affairs. 3 Hours. PR: Consent. A study of the organization, administrative functioning components, issues, and models of college student services using a historical and topical approach.	HIED 654. College Student Affairs. 3 Hours. PR: departmental approval. A study of the organization, administrative functioning components, issues, and models of college student services using a historical and topical approach.	PREFIX CHANGE From EDLS 654 TO HIED 654: Separating Edls/school administration from Higher Education Administration courses.
HIED 759	Change prefix.	EDLS 759. Assmt Research in Higher Ed. 3 Hours. Students review an array of instruments designed to assess college students' perceptions, satisfaction, and learning. They will also critique these instruments to determine their quality.	HIED 759. Assmt Research in Higher Ed. 3 Hours. Students review an array of instruments designed to assess college students' perceptions, satisfaction, and learning. They will also critique these instruments to determine their quality.	This is a simple prefix change from EDLS to HIED to reflect the proper programmatic home of this offering.
ILR 562	Change title and description.	ILR 562. Collective Bargaining. 3 Hours. Examination of the theory and practice of collective bargaining. Topics include economic and historical environment, labor law, unionization, contract negotiation, patterns in contract content, conflict resolution, grievance handling, and an introduction to arbitration.	ILR 562. Labor Relations. 3 Hours. Examination of the theory and practice of labor relations and collective bargaining. Topics include economic and historical environment, labor law, unionization, contract negotiation, patterns in contract content, conflict resolution, grievance handling, and an introduction to arbitration.	Separates topics and clarifies what is being taught. Historically this class has covered a little bit of collective bargaining but primarily was labor relations. The program now has a course dedicated to collective bargaining.

JRL 210	Change PR.	JRL 210. Visual Journalism/New	JRL 210. Visual Journalism/New	Opening this course to College of
		Media. 3 Hours. PR: Journalism	Media. 3 Hours. PR: College of Media	Media minors as well as majors.
		Major. Theory and principles of	major or minor. Theory and	
		visual communication and image	principles of visual communication	
		culture. Software applications for	and image culture.	
		photography, graphic design, video		
		and web publishing.		
SPA 199	Change from	SPA 199. Orientation-Speech	SPA 199. Orientation-Speech	The course is an orientation course for
	repeatable to non-	Path/Audiol. 1 Hour. Designed to	Path/Audiol. 1 Hour. Designed to	students majoring in speech pathology
	repeatable.	meet the First Year Experience core	meet the First Year Experience core	and audiology. As an orientation
		objectives for pre-spa students. This	objectives for pre-spa students. This	course, students should only take it
		course serves as an orientation to	course serves as an orientation to	once.
		the professions of speech pathology	the professions of speech pathology	
		and audiology as well as	and audiology as well as	
		departmental degree programs,	departmental degree programs,	
		requirements, and personnel.	requirements, and personnel.	

STAT 201	Change PR. Note	STAT 201. Applied Statistical	STAT 201. Applied Statistical	The alterations proposed will allow
	that the	Modeling. 3 Hours. PR: MATH 121 or	Modeling. 3 Hours. PR: MATH 121	students to register for STAT 201 or
	equivalents in	higher. Introduction to modeling in	or higher. [MATH 121, MATH 124,	STAT 211 based on an acceptable QRA
	brackets will be	the social, behavioral, and health	MATH 126, MATH 126A. MATH 126B,	score, or an acceptable ACT/SAT score.
	coded in Banner	sciences. Descriptive statistics,	MATH 126C, MATH 129, WVU Math	This makes the placement policy for
	but will not	probability, discrete/continuous	Plcmnt - Bsc Algebra 14, ACT - Math	STAT 201 align with the policy used for
	appear in the	distributions, random variables,	25, or SAT - Math 0570] Introduction	courses in the Department of
	course catalog	sampling distributions, t-tests,	to modeling in the social, behavioral,	Mathematics, and allows qualified first
	description.	regression, correlation, categorical	and health sciences. Descriptive	year students and transfer students to
		models, repeated measures, one-	statistics, probability,	register without needing departmental
		and two-way ANOVA, covariance	discrete/continuous distributions,	overrides.
		models.	random variables, sampling	
			distributions, t-tests, regression,	
			correlation, categorical models,	
			repeated measures, one- and two-	
			way ANOVA, covariance models.	

STAT 211	Change PR. Note	STAT 211. Elemntry Statistical	STAT 211. Elementary Statistical	The alterations proposed will (a)
	that the	Inference. 3 Hours. PR: MATH 126 or	Inference. 3 Hours. PR MATH 126 or	correct an awkward abbreviated
	equivalents in	higher. (Not open to students who	higher. [MATH 126A, MATH 126B,	course title that looks like a
	brackets will be	have completedSTAT 215.) Basic	MATH 126C, MATH 128, MATH 129,	proofreading error (even if it is not),
	coded in Banner	concepts of descriptive and	MATH 150, MATH 153, MATH 154,	replacing "Elemntary" and "Elemntry"
	but will not	inferential statistics: descriptive	MATH 155, MATH 156, MATH 231,	with a straightforward and familiar
	appear in the	measures, random variables,	MATH 232, MATH 238, MATH 251, ("Elem. Statistical Inference"; and (b)
	course catalog	sampling distributions, estimation,	WVU Math Plcmnt - Bsc Algebra 14	allow students to register for STAT 211
	description.	tests of hypotheses, chi-square tests,	and WVU Math Plcmnt - Composite	based on an acceptable QRA score, or
		regression and correlation.	24), ACT - Math 26, or SAT - Math	an acceptable ACT/SAT score. This
		(Equivalent to ECON 225.).	0580] (Not open to students who	makes the placement policy for STAT
			have completed STAT 215) Basic	201 align with the policy used for
			concepts of descriptive and	courses in the Department of
			inferential statistics: descriptive	Mathematics, and allows qualified first
			measures, random variables,	year students and transfer students to
			sampling distributions, estimation,	register without needing departmental
			tests of hypotheses, chi-square tests,	overrides.
			regression and correlation.	
			(Equivalent to ECON 225.)	
STCM 215	Change PR.	STCM 215. Intro to Strat	STCM 215. Intro to Strat	prerequisite changed to allow first-
		Communications. 3 Hours. PR: JRL	Communications. 3 Hours. PR:	semester Reed College of Media
		101 and JRL 215. This introductory	College of Media majors only. This	majors to enroll in this introductory
		course in strategic communications	introductory course in strategic	course
		provides a broad overview of	communications provides a broad	
		professional advertising and public	overview of professional advertising	
		relations practices and their role in	and public relations practices and	
		society. (Also listed as ADV 215	their role in society. (Course is	
		andPR 215.).	equivalent to ADV 215 & PR 215.)	

STCM 459	Change title and	STCM 459. Strategic Comm/PR	STCM 459. Strategic Communications	The new course title more accurately
	description.	Cmpgns - CAP. 3 Hours. PR: STCM	(PR and Advertising) Campaigns. 3	reflects this course (which is a merger
		315 and STCM 421. This capstone	Hours. PR: STCM 315 and STCM 421.	of our former PR and Advertising
		course synthesizes knowledge from	This capstone course synthesizes	capstone courses into one) and serves
		all prior major courses and applies it	knowledge from all prior major	as our new Strategic Communications
		to the development of a Strategic	courses and applies it to the	major capstone.
		Communications campaign in a real	development of a Strategic	
		world environment. (Also listed	Communications (Advertising and	
		asADV 459, PR 459 and STCM 559).	Public Relations) campaign in a real	
			world environment. (Also listed as	
			ADV 459, PR 459, & STCM 559).	
Action: Course Alte	erations (Minor Ch	anges).	Effective Term: Fall 2015	
Action: Course Alte Title	erations (Minor Ch Action	anges). Old Course Description	Effective Term: Fall 2015 New Course Description	Course Curriculum Based Rationale
Action: Course Alto Title COUN 622	erations (Minor Ch Action Change title.	anges). Old Course Description COUN 622. Community Counseling. 3	Effective Term: Fall 2015 New Course Description COUN 622. Introduction to Clinical	Course Curriculum Based Rationale The national accrediting body has
Action: Course Alto Title COUN 622	erations (Minor Ch Action Change title.	anges). Old Course Description COUN 622. Community Counseling. 3 Hours. PR or CONC: COUN 501 or	Effective Term: Fall 2015 New Course Description COUN 622. Introduction to Clinical Mental Health. 3 Hours. PR or CONC:	Course Curriculum Based Rationale The national accrediting body has dropped the community counseling
Action: Course Alto Title COUN 622	erations (Minor Ch Action Change title.	anges). Old Course Description COUN 622. Community Counseling. 3 Hours. PR or CONC: COUN 501 or Consent. Role and function of the	Effective Term: Fall 2015 New Course Description COUN 622. Introduction to Clinical Mental Health. 3 Hours. PR or CONC: COUN 501 or Consent. Role and	Course Curriculum Based Rationale The national accrediting body has dropped the community counseling title and substituted the title clinical
Action: Course Alto Title COUN 622	erations (Minor Ch Action Change title.	anges). Old Course Description COUN 622. Community Counseling. 3 Hours. PR or CONC: COUN 501 or Consent. Role and function of the community agency counselor; DMS	Effective Term: Fall 2015 New Course Description COUN 622. Introduction to Clinical Mental Health. 3 Hours. PR or CONC: COUN 501 or Consent. Role and function of the clinical mental	Course Curriculum Based Rationale The national accrediting body has dropped the community counseling title and substituted the title clinical mental health. This is a title change
Action: Course Alto Title COUN 622	erations (Minor Ch Action Change title.	anges). Old Course Description COUN 622. Community Counseling. 3 Hours. PR or CONC: COUN 501 or Consent. Role and function of the community agency counselor; DMS categories and ethical standards,	Effective Term: Fall 2015 New Course Description COUN 622. Introduction to Clinical Mental Health. 3 Hours. PR or CONC: COUN 501 or Consent. Role and function of the clinical mental healthcounselor; DSM categories and	Course Curriculum Based Rationale The national accrediting body has dropped the community counseling title and substituted the title clinical mental health. This is a title change only. Content is the same.
Action: Course Alto Title COUN 622	erations (Minor Ch Action Change title.	Old Course Description COUN 622. Community Counseling. 3 Hours. PR or CONC: COUN 501 or Consent. Role and function of the community agency counselor; DMS categories and ethical standards, cognitive skills and practical	Effective Term: Fall 2015 New Course Description COUN 622. Introduction to Clinical Mental Health. 3 Hours. PR or CONC: COUN 501 or Consent. Role and function of the clinical mental healthcounselor; DSM categories and ethical standards, cognitive skills and	Course Curriculum Based Rationale The national accrediting body has dropped the community counseling title and substituted the title clinical mental health. This is a title change only. Content is the same.
Action: Course Alto Title COUN 622	erations (Minor Ch Action Change title.	Old Course Description COUN 622. Community Counseling. 3 Hours. PR or CONC: COUN 501 or Consent. Role and function of the community agency counselor; DMS categories and ethical standards, cognitive skills and practical experience necessary to understand	Effective Term: Fall 2015 New Course Description COUN 622. Introduction to Clinical Mental Health. 3 Hours. PR or CONC: COUN 501 or Consent. Role and function of the clinical mental healthcounselor; DSM categories and ethical standards, cognitive skills and practical experience necessary to	Course Curriculum Based Rationale The national accrediting body has dropped the community counseling title and substituted the title clinical mental health. This is a title change only. Content is the same.
Action: Course Alto Title COUN 622	erations (Minor Ch Action Change title.	Old Course Description COUN 622. Community Counseling. 3 Hours. PR or CONC: COUN 501 or Consent. Role and function of the community agency counselor; DMS categories and ethical standards, cognitive skills and practical experience necessary to understand client populations served by	Effective Term: Fall 2015 New Course Description COUN 622. Introduction to Clinical Mental Health. 3 Hours. PR or CONC: COUN 501 or Consent. Role and function of the clinical mental healthcounselor; DSM categories and ethical standards, cognitive skills and practical experience necessary to understand client populations served	Course Curriculum Based Rationale The national accrediting body has dropped the community counseling title and substituted the title clinical mental health. This is a title change only. Content is the same.
Action: Course Alto Title COUN 622	erations (Minor Ch Action Change title.	Old Course Description COUN 622. Community Counseling. 3 Hours. PR or CONC: COUN 501 or Consent. Role and function of the community agency counselor; DMS categories and ethical standards, cognitive skills and practical experience necessary to understand client populations served by community agencies.	Effective Term: Fall 2015 New Course Description COUN 622. Introduction to Clinical Mental Health. 3 Hours. PR or CONC: COUN 501 or Consent. Role and function of the clinical mental healthcounselor; DSM categories and ethical standards, cognitive skills and practical experience necessary to understand client populations served by community agencies.	Course Curriculum Based Rationale The national accrediting body has dropped the community counseling title and substituted the title clinical mental health. This is a title change only. Content is the same.

MKTG 315	Change PR.	MKTG 315. Buyer Behavior. 3 Hours. PR: BCOR 350. The buyer decision process in a marketing framework. Emphasis on psychological and sociological concepts which influence the decision process.	MKTG 315. Buyer Behavior. 3 Hours. PR: BCOR 350 with a grade of C- or better. PR: BCOR 350 with a grade of C- or better. The buyer decision process in a marketing framework. Emphasis on psychological and sociological concepts which influence the decision process.	Students need to have a sufficient understanding of principles of marketing, which is represented by earning a grade of C- or higher in BCOR 350, to attempt upper-division Marketing courses.
МКТ <u>G</u> 320	Change PR.	MKTG 320. Personal Selling. 3 Hours. PR or CONC: BCOR 350. Deals with interpersonal communication, influencing, and persuasion processes designed to satisfy customer and company needs; stresses the structure of sound sales presentations through lectures, persuasive presentations, and appraisal and correction of common selling errors.	MKTG 320. Personal Selling. 3 Hours. PR: BCOR 350 with grade C- or better. PR: BCOR 350 with a grade of C- or better. Deals with interpersonal communication, influencing, and persuasion processes designed to satisfy customer and company needs; stresses the structure of sound sales presentations through lectures, persuasive presentations, and appraisal and correction of common selling errors.	Students need to have a sufficient understanding of principles of marketing, which is represented by earning a grade of C- or higher in BCOR 350, to attempt upper-division Marketing courses.
MKTG 325	Change PR.	MKTG 325. Marketing Analytics. 3 Hours. PR: MKTG 315. Scientific approach to the solution of marketing problems with emphasis on research methods and techniques.	MKTG 325. Marketing Analytics. 3 Hours. PR: MKTG 315 with grade of C- or better. PR: MKTG 315 with a grade of C- or better. Scientific approach to the solution of marketing problems with emphasis on research methods and techniques.	Students need to have a sufficient understanding of Buyer Behavior, which is represented by earning a grade of C- or higher in MKTG 315, to attempt upper-division Marketing courses.

МКТС 330	Change PR.	MKTG 330. Distribution Channels. 3 Hours. PR: BCOR 350. Management of channel systems with emphasis on retail distribution, channel choice, strategies, control, and optimization within the context of role, power, conflict, and communications.	MKTG 330. Distribution Channels. 3 Hours. PR: BCOR 350 with a grade of C- or better. PR: BCOR 350 with a grade of C- or better. Management of channel systems with emphasis on retail distribution, channel choice, strategies, control, and optimization within the context of role, power, conflict, and communications.	Students need to have a sufficient understanding of principles of marketing, which is represented by earning a grade of C- or higher in BCOR 350, to attempt upper-division Marketing courses.
MKTG 345	Change PR.	MKTG 345. Selling with Digital Media. 3 Hours. PR: BCOR 350. Exploration of how emerging forms of digital media such as social networking, and/or blogs can advance or hinder personal selling and marketing in the 21st century.	MKTG 345. Selling with Digital Media. 3 Hours. PR: BCOR 350 with a grade of C- or better. PR: BCOR 350 with a grade of C- or better. Exploration of how emerging forms of digital media such as social networking, and/or blogs can advance or hinder personal selling and marketing in the 21st century.	Students need to have a sufficient understanding of principles of marketing, which is represented by earning a grade of C- or higher in BCOR 350, to attempt upper-division Marketing courses.
МКТĞ 350	Change PR.	MKTG 350. Product & Price Policies. 3 Hours. PR: BCOR 350. Deals with the company's product offering as economic and marketing variables influencing product's price; stress on determination of product and price objectives, planning, implementation, and evaluation of results.	MKTG 350. Product & Price Policies. 3 Hours. PR: BCOR 350 with a grade of C- or better. PR: BCOR 350 with a grade of C- or better. Deals with the company's product offering as economic and marketing variables influencing product's price; stress on determination of product and price objectives, planning, implementation, and evaluation of results.	Students need to have a sufficient understanding of principles of marketing, which is represented by earning a grade of C- or higher in BCOR 350, to attempt upper-division Marketing courses.

MKTG 380	Change PR.	MKTG 380. Integrated Promotions. 3	MKTG 380. Integrated Promotions. 3	Students need to have a sufficient
		Hours. PR: BCOR 350. Marketing	Hours. PR: BCOR 350 with a grade of	understanding of principles of
		promotions can dramatically	C- or better. PR: BCOR 350 with a	marketing, which is represented by
		influence the relative success of	grade of C- or better. Marketing	earning a grade of C- or higher in BCOR
		firms and their brands. As such, we	promotions can dramatically	350, to attempt upper-division
		seek to understand the processes	influence the relative success of firms	Marketing courses.
		and approaches that organizations	and their brands. As such, we seek to	
		use in developing and sustaining	understand the processes and	
		effective promotional strategies.	approaches that organizations use in	
			developing and sustaining effective	
			promotional strategies.	
MKTG 410	Change PR.	MKTG 410. Retail Management. 3	MKTG 410. Retail Management. 3	Students need to have a sufficient
		Hours. PR: BCOR 350 and MKTG 315.	Hours. PR: MKTG 315 with a grade of	understanding of principles of
		The organization and operating	C- or better. PR: MKTG 315 with a	marketing and buyer behavior, which is
		environment of retail firms. Special	grade of C- or better. The	represented by earning a grade of C- or
		emphasis placed on consumer	organization and operating	higher in BCOR 350 and MKTG 315, to
		market segmentation and the	environment of retail firms. Special	attempt upper-division Marketing
		marketing variables of merchandise	emphasis placed on consumer	courses.
		mix, effective pricing, store location,	market segmentation and the	
		and communication with suppliers	marketing variables of merchandise	
		and consumers.	mix, effective pricing, store location,	
			and communication with suppliers	
			and consumers.	

MKTG 420	Change PR.	MKTG 420. Sales Management. 3 Hours. PR: MKTG 320. Concentrates on the managerial responsibilities of sales manager for directing, motivating, and controlling a sales force plus the techniques of selling, including objections and closing.	MKTG 420. Sales Management. 3 Hours. PR: MKTG 320 with a grade of C- or better. PR: MKTG 320 with a grade of C- or better. Concentrates on the managerial responsibilities of sales manager for directing, motivating, and controlling a sales force plus the techniques of selling, including objections and closing.	Students need to have a sufficient understanding of personal selling, which is represented by earning a grade of C- or higher in MKTG 320, to attempt upper-division Marketing courses.
MKTG 425	Change PR.	MKTG 425. Sustainable Marketing. 3 Hours. PR: BCOR 350 and MKTG 315 and MKTG 325. Explores current environmental strategies focusing on reaching organizational goals and sustainable performance through marketing theory and practice.	MKTG 425. Sustainable Marketing. 3 Hours. PR: MKTG 325 with a grade of C- or better. PR: MKTG 325 with a grade of C- or better. Explores current environmental strategies focusing on reaching organizational goals and sustainable performance through marketing theory and practice.	Students need to have a sufficient understanding of principles of marketing,buyer behavior and marketing analytics which is represented by earning a grade of C- or higher in BCOR 350, MKTG 315 and MKTG 325 to attempt upper-division Marketing courses.
MKTG 430	Change PR.	MKTG 430. Business Logistics Management. 3 Hours. PR: MKTG 330. Examination of transportation, warehousing, materials handling, containerization, inventory control, purchasing, and warehouse location. Significant use made of problem solving with analytical tools.	MKTG 430. Business Logistics Management. 3 Hours. PR: MKTG 330 with a grade of C- or better. PR: MKTG 330 with a grade of C- or better. Examination of transportation, warehousing, materials handling, containerization, inventory control, purchasing, and warehouse location. Significant use made of problem solving with analytical tools.	Students need to have a sufficient understanding of distribution channels, which is represented by earning a grade of C- or higher in MKTG 330, to attempt upper-division Marketing courses.

MKTG 455	Change PR.	MKTG 455. Societal Issues in	MKTG 455. Societal Issues in	Students need to have a sufficient
	U U	Marketing. 3 Hours. PR: BCOR 350.	Marketing. 3 Hours. PR: BCOR 350	understanding of principles of
		An inquiry-based study of current	with a grade of C- or better. PR:	marketing, which is represented by
		societal issues in marketing including	BCOR 350 with a grade of C- or	earning a grade of C- or higher in BCOR
		ethical, regulatory, and legal issues,	better. An inquiry-based study of	350, to attempt upper-division
		along with social and global trends	current societal issues in marketing	Marketing courses.
		and events impacting marketing and	including ethical, regulatory, and	_
		marketing environments.	legal issues, along with social and	
			global trends and events impacting	
			marketing and marketing	
			environments.	
MKTG 460	Change PR.	MKTG 460. Business to Business	MKTG 460. Business to Business	Students need to have a sufficient
		Marketing. 3 Hours. PR: BCOR 350. A	Marketing. 3 Hours. PR: BCOR 350	understanding of principles of
		study of marketing to three classes	with a grade of C- or better. PR:	marketing, which is represented by
		of customers: the commercial	BCOR 350 with a grade of C- or	earning a grade of C- or higher in BCOR
		market, the institutional market, and	better. A study of marketing to three	350, to attempt upper-division
		government agencies.	classes of customers: the commercial	Marketing courses.
			market, the institutional market, and	
			government agencies.	
MKTG 465	Change PR.	MKTG 465. Focal Points in	MKTG 465. Focal Points in	Students need to have a sufficient
		Marketing. 1-3 Hours. PR: BCOR 350.	Marketing. 41642 Hours. PR: BCOR	understanding of principles of
		In-depth study of specialized	350 with a grade of C- or better. PR:	marketing, which is represented by
		marketing subjects, e.g., franchising,	BCOR 350 with a grade of C- or	earning a grade of C- or higher in BCOR
		tourism, packaging, or product	better. In-depth study of specialized	350, to attempt upper-division
		development. (Each subject is self-	marketing subjects, e.g., franchising,	Marketing courses.
		contained, spans one-third of a	tourism, packaging, or product	
		semester, and is valued at 1 credit	development. (Each subject is self-	
		hour.).	contained, spans one-third of a	
			semester, and is valued at 1 credit	
			hour.)	

MKTG 470	Change PR.	MKTG 470. Marketing Management.	MKTG 470. Marketing Management.	Students need to have a sufficient
	0	3 Hours. PR: BCOR 350 and MKTG	3 Hours. PR: MKTG 325 with a grade	understanding of principles of
		315 and MKTG 325, and six hours of	of C- or better. PR: MKTG 325 with a	marketing, buyer behavior and
		marketing or consent. Simulation,	grade of C- or better. Simulation,	marketing analytics, which is
		through live and written case study,	through live and written case study,	represented by earning a grade of C- or
		should sharpen skills as the student	should sharpen skills as the student	higher in BCOR 350, MKTG 315 and
		makes analytical evaluations of	makes analytical evaluations of	MKTG 325 to attempt upper-division
		marketing problems.	marketing problems.	Marketing courses.
MKTG 474	Change PR.	MKTG 474. Outside Case	MKTG 474. Outside Case	Students need to have a sufficient
		Competition. 3 Hours. PR: MKTG	Competition. 3 Hours. PR: MKTG 325	understanding of marketing analytics,
		325. Working with a small team,	with a grade of C- or better. PR:	which is represented by earning a
		students participate in an outside	MKTG 325 with a grade of C- or	grade of C- or higher in MKTG 325, to
		case competition with a prominent	better. Working with a small team,	attempt upper-division Marketing
		commercial and government client.	students participate in an outside	courses.
			case competition with a prominent	
			commercial and government client.	
MKTG 475	Change PR.	MKTG 475. Social Media and	MKTG 475. Social Media and	Students need to have a sufficient
		Marketing. 3 Hours. PR: BCOR 350.	Marketing. 3 Hours. PR: BCOR 350	understanding of principles of
		Students will explore and learn how	with a grade of C- or better. PR:	marketing, which is represented by
		to integrate these social media	BCOR 350 with a grade of C- or	earning a grade of C- or higher in BCOR
		platforms into product and	better. Students will explore and	350, to attempt upper-division
		organization marketing efforts.	learn how to integrate these social	Marketing courses.
			media platforms into product and	
			organization marketing efforts.	

MKTG 480	Change PR.	MKTG 480. Services Marketing. 3	MKTG 480. Services Marketing. 3	Students need to have a sufficient
		Hours. PR: BCOR 350 plus 4 MKTG	Hours. PR: MKTG 325 with a grade of	understanding of principles of
		courses. Services marketing gives	C- or better. PR: MKTG 325 with a	marketing, which is represented by
		students an appreciation of the	grade of C- or better. Services	earning a grade of C- or higher in BCOR
		challenges of marketing and	marketing gives students an	350, to attempt upper-division
		managing services and strategies for	appreciation of the challenges of	Marketing courses.
		addressing these challenges. The	marketing and managing services	
		course features a combination of	and strategies for addressing these	
		lectures, in-class exercises and	challenges. The course features a	
		projects (including class	combination of lectures, in-class	
		presentations).	exercises and projects (including	
			class presentations).	
MKTG 485	Change PR.	MKTG 485. Global Marketing. 3	MKTG 485. Global Marketing. 3	Students need to have a sufficient
		Hours. PR: MKTG 325 and MKTG	Hours. PR: MKTG 325 with a grade of	understanding of marketing analytics
		350. Evaluation and analysis of	C- or better and MKTG 350 with a	and product and price policies, which is
		marketing strategies in a globa	grade of C- or better. PR: MKTG 325	represented by earning a grade of C- or
		environment, examination of the	with a grade of C- or better and	higher in MKTG 325 and MKTG 350, to
		relationship between international	MKTG 350 with a grade of C- or	attempt upper-division Marketing
		buyer behavior and the elements of	better. Evaluation and analysis of	courses.
		the marketing mix.	marketing strategies in a global	
			environment, examination of the	
			relationship between international	
			buyer behavior and the elements of	
			the marketing mix.	
Deactivations				
EDLS 654 and EDL	S 759			

B.S. in Aviation Management

College of Business, Humanities and Social Sciences

West Virginia University Institute of Technology

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Part I. Program Description and Objectives

A. Program Background and Objectives

The College of Business, Humanities and Social Sciences (BHSS) at West Virginia University Institute of Technology requests permission to offer a Bachelor of Science degree in Aviation Management. The Aviation Management degree will prepare graduates for positions in the aviation industry with emphasis on employment at regional airlines. Potential jobs include pilots, instructor pilots, check airmen, and positions in aviation leadership and management. It will allow students to obtain the personal, intellectual, and professional growth afforded by a college program. These objectives will be achieved through successful completion of a solid foundation of general education core, business, and management classes combined with indepth aviation coursework and high quality flight training.

Flight training will be provided through partnership(s) with well-known leaders in the flight training industry at location(s) across the country. Such partnerships give WVU Tech students access to established flight training systems and an extensive fleet of aircraft and simulators. From a fiscal perspective, these partnerships eliminate the need for the multi-million dollar capitol expense required to establish in-house flight training. One of the unique features of the proposed program is that, with the exception of flight training, it will be available online and appeal to students not well served by traditional in-seat aviation programs.

B. Program Identification

It is recommended that the CIP code of 49.0102 be applied to the Aviation Management B.S. program.

C. Program Features and Curriculum

The program is unique in that it offers both the opportunity for student pilots to pursue flight training and for professional pilots to continue to work while simultaneously completing a college degree. Airline hiring requirements, Federal Aviation Administration (FAA) requirements, and public opinion all dictate that professional pilots have significant flight experience prior to airline employment. Traditional collegiate aviation programs do not provide an effective mechanism to achieve the necessary flight experience. FAA regulations effective August 2013 have further complicated this situation, requiring airline pilots to obtain at least 1500 flight hours before employment at U.S airlines.

The proposed Aviation Management curriculum shall require 120 credit hours for graduation and is made up of five principle elements emphasizing breadth of knowledge and the development of technical and analytical skills. They include: 1) 45 credit hours from the University GEC; 2) 21 hours of upper division business core classes; 3) 18 hours of aviation courses; 4) 24 hours of flight related courses and professional field experience, and/or equivalent FAA certifications; and 5) 12 hours of restricted electives approved by the program director or dean.

WVU Tech will not conduct flight training operations. Instead WVU Tech will develop agreements with nationally recognized flight training organizations for all necessary flight training.

The following components make up the curriculum:

- 1. Successful completion of the 45 credit hours of the WVU Tech/ WV University GEC requirements.
- 2. Completion of 21 credit hours of business courses, including:

AVIA 486	Aviation Systems Management
AVIA 489	Aviation Law
BCOR 350	Principles of Marketing
BCOR 370	Managing Individuals and Teams
MANG 330	HR Management Fundamentals
MANG 350	Leadership in Business
MANG 422	The Individual and the Organization

- 3. Completion of 18 credit hours of aviation courses, including:
 - AVIA 380 Aviation Weather
 - AVIA 382 Aerodynamics and Aircraft Performance
 - AVIA 383 Aircraft Systems
 - AVIA 480 Human Factors in Flight
 - AVIA 484 Aviation Safety
 - Air Traffic Control and Airspace AVIA 385
- 4. Completion of 24 credit hours of flight related courses, equivalent FAA certification, including:

AVIA	101	Private Pilot
AVIA	181	Professional Field Experience
AVIA	201	Instrument Rating
AVIA	231	Commercial Pilot
AVIA	241	Multi-Engine Rating
AVIA	281	Professional Field Experience

- 5. Completion of 12 credit hours of restricted aviation electives from the following:
 - Principles of Aviation Instruction AVIA 301 AVIA 302
 - Flight Instructor
 - AVIA 304 Instrument Flight Instructor

AVIA 306 Multi-Engine Flight Instructor AVIA 351 **Crew Resource Management** AVIA 352 **ATP/Turbine Aircraft Operations** AVIA 381 **Professional Field Experience AVIA 483** Air Transportation **AVIA 485 Aviation Economics** AVIA 487 **Aviation Security Aviation Stories AVIA 488**

The program is designed to allow flexibility in the selection of restricted electives and flight training requirements. Students seeking to meet the FAA Advisory Circular AC No 61-139 must complete all FAA required courses as shown in Appendix V. All students must complete AVIA 101 Private Pilot through AVIA 231 Commercial Pilot or hold the equivalent Federal Aviation Administration (FAA) certificates. Students not seeking to meet the requirements of AC No. 61-139 may substitute business courses for up to 12 hours of 300-400 level AVIA courses with the approval of the program director or dean of BHSS.

The following chart outlines the level of learning objectives of each of the AVIA courses:

AVIA	Bloom's	Bloom's	Bloom's	Bloom's	Bloom's	Bloom's
Course	Knowledge	Comprehension	Application	Analysis	Synthesis	Evaluation
VIA 101*	х	x	х			
VIA 191*			х			
VIA 201*			х	x		
VIA 231*			х			
VIA 241*		x	х			
VIA 291*			x			
VIA 301				х	x	х
VIA 302			x		x	
VIA 304			x		x	
VIA 306			x		x	х
VIA 351				х	x	х
VIA 352			x		x	х
VIA 380*				x		х
VIA 382*			x	x		х
VIA 383*		x	x	х	x	х
VIA 385*	x				x	х
VIA 391			x		x	
VIA 480*			x	x	x	х
VIA 483		X		x	x	х
VIA 484*		X			x	х
VIA 485				Х	x	х
VIA 486*		X	x	Х	x	х
VIA 487		X	x	Х	x	х
VIA 488				Х	x	
VIA 489*		X	X	Х		X
ote: * indica	tes a required co	urse				

A matriculation plan may be found in Appendix III.

D. Program Outcomes

Program Objectives

The Aviation Management B.S. degree will prepare graduates for employment in the aviation industry with emphasis on positions at regional airlines, including line pilots, instructor pilots, check airman, and leadership and managerial roles. The degree will also allow students to obtain the personal, intellectual, and professional growth afforded by a college program. These objectives will be achieved through successful completion of a solid foundation of business and management classes, in-depth aviation coursework, and the university's comprehensive general education requirements.

Program Outcomes

Graduates will:

1. Develop a thorough knowledge of aeronautical theories, practices, regulations, and procedures through the online course work and flight training.

<u>Assessment</u>: All of the courses proposed for the Aviation Management program identified as AVIA 101–291 contain components which focus on knowledge of aeronautical theories, practices, regulations, and procedures. Proficiency in these areas is evaluated through the use of multiple choice tests. A passing grade in each course of "C" or better will be considered acceptable for proficiency in the areas of aeronautical theories, practices, regulations, and procedures.

In addition, the four required FAA Knowledge Examinations associated with AVIA 101 - 291 also test a student's proficiency in knowledge of aeronautical theories, practices, regulations, and procedures. The FAA Knowledge Examinations, which are delivered via computer at FAA approved testing centers, will provide independent verification of student proficiency at each level of certification. Confirmation of a student's progress on the required FAA Knowledge Examinations will be acquired through the approved flight training provider who keeps on file the student's certification of completion for each of the seven FAA Knowledge Examinations.

Tracking of student progress on this outcome will occur at the end of each semester and appropriate student advising will be provided.

2. Have a cumulative pass rate on the four mandatory and up to four elective sequenced pilot and instructor FAA ratings and certification practical tests (i.e., flight tests) of 80% or above by the end of flight training. Individual students will repeat no more than two of the eight FAA practical tests during the course of flight training.

<u>Assessment</u>: The approved flight training organization oversees the testing of students on the eight sequenced pilot and instructor FAA ratings and certification practical tests. Using the data acquired from the approved flight training provider, student progress will be tracked at the end of each semester. A report will be generated showing the status of each student's progress and appropriate advising will be provided.

The approved flight training organization oversees the testing of students on the eight sequenced pilot and instructor FAA ratings and certification practical tests. Using the data acquired from the approved flight training provider, student progress will be tracked at the end of each semester. A report will be generated showing the status of each student's progress and appropriate advising will be provided.

3. Obtain the eight sequenced pilot and instructor FAA ratings and certifications as outlined in the program either in conjunction with flight training from the approved flight training provider or prior to the beginning of academic coursework.

<u>Assessment</u>: Using the FAA website which provides information on completion of the eight sequenced pilot and instructor FAA ratings and certifications, student progress will
be tracked at the end of each semester. A report will be generated showing the status of each student's progress and appropriate advising will be provided.

4. Develop the ability to think critically and communicate effectively.

<u>Rationale for using the term critical thinking</u>: Critical thinking can be defined as how to use your mind to achieve your goals. This involves an attitude of open-minded inquiry and a multitude of intellectual skills. Some of the intellectual skills which support openminded inquiry includes identifying and describing problems, gathering and interpreting relevant information associated with the problem, and forming conclusions based on the best information available at the time.

Open-minded inquiry supported by critical thinking skills are essential to safe operations in the field of aviation. For example, in the normal course of aviation operations, pilots must use problem solving skills daily. Oftentimes, pilots must quickly gather information, including data, facts, and observations, which will inform command decisions. Doing so also involves understanding the potential consequences of those decisions. Judgment of the available information is at the core of command decisions.

Pilots must understand the complex interactions with other systems, technologies, and the environment. This understanding is particularly acute in modern aviation as the field moves away from skills based proficiency, that is, the ability to physically fly a plane, to the increased need for highly developed cognitive skills in an automated cockpit. Judgment is what the auto-pilot cannot provide. Judgment is what the human pilot brings to modern aviation. Thus, critical thinking skills are essential to the ability of the 21st century pilot to perform at their highest level.

<u>Assessment of Critical Thinking</u>: Case studies, scenario and problem-based learning forms the foundation of the Aviation Management program. The products produced for the online courses in the program include papers, discussions, essays, and projects. These products focus on communication, problem identification, analysis, clarification, data gathering, and potential solutions. Pilots are well conditioned to policy, procedures, and automatic responses. Yet, in real life, they must be able to respond beyond these trained reflexes. In the upper-division aviation courses the emphasis is on moving the student away from conditioned responses into utilizing the interaction of critically thought out responses with the policy and procedural requirements of the discipline.

Throughout a student's studies, products developed in the aviation courses will be assessed for critical thinking skills such as the ability to formulate and clarify a question, sort relevant from irrelevant factors, showing the steps in solving a problem, and forming conclusions. In addition, AVIA 486, Aviation Management Leadership (Capstone), will be the final product designed to demonstrate the student's ability to think and judge critically and communicate effectively. A passing grade of "C" or better in an aviation course will be used as evidence that students are developing critical thinking skills. Elements of the assessment plan include a program advisory board, capstone course, graduate survey, employer survey, and five-year self-study. The advisory board will be comprised of representatives from the flight training industry, the airline industry, WVU Tech officials, and alumni. The board will serve such functions as offering guidance for the curriculum, making recommendations for marketing, and assisting in fundraising. The capstone course is interdisciplinary and emphasizes critical thinking skills and their application to the airline industry. The program will measure student/employer satisfaction and track graduate placement in industry. Similar to other university programs, Aviation Management will also complete five-year program self-studies with oversight from the college, university, and Board of Governors.

E. Program Delivery

Aviation Management is designed as an online program, with the exception of the flight training component (AVIA Professional Field Experience courses). All GEC courses, business courses, and aviation courses will be offered online as WVU Tech courses through the WVU eCampus learning system. Flight courses involving flight and/or flight simulator instruction will be offered as Professional Field Experience courses in conjunction with an approved flight training provider. WVU Tech will develop MOUs with specific flight training facilities such as Airline Transport Professionals (ATP), one of the nation's largest fight training centers; and CAE Oxford Aviation Academy; and Flight Safety International. Each of these organizations has approached WVU Tech upon learning that an aviation management program is under consideration.

Part II. Program Need and Justification

A. Relationship to Institutional Goals/Objectives

The program fits well within the mission of West Virginia University Institute of Technology to prepare students for careers in engineering, science, business, humanities, and social sciences. It will attract students of diverse backgrounds and promote the university's overall mission to "enhance educational achievement, and build pathways for the exchange of knowledge and opportunity between the state, the nation, and the world."

B. Existing Programs

No similar program currently exists in West Virginia. Fairmont State University offers a traditional B.S. degree in Aviation Technology with an option for incorporating flight training. However, the program is not available online. While a few online aviation programs may be found outside of West Virginia, none have partnered with a major flight training organization for the delivery of professional level flight training.

C. Program Planning and Development

After an analysis of existing programs, employment opportunities, and student interest, the faculty in the WVU Tech College of Business, Humanities and Social Sciences developed the curriculum and proposal for the proposed Aviation Management Program. The dean and the interim aviation program coordinator met faculty, the associate provost, the chief academic officer, and representatives from Airline Transport Professionals, CAE Oxford Aviation Academy, Cessna Aircraft, and the Federal Aviation Administration Flight Standards District Office in the development of the curriculum.

D. Clientele and Need

Clientele

The program is designed to meet the needs of aspiring professional pilots. It will also help address the shortage of regional airline pilots. It will accommodate both new pilots and pilots with previous flight training.

At the completion of traditional collegiate pilot programs, graduates are typically 21 years of age and have 300 hours of flight experience. Before these individuals are eligible for airline employment, they must be at least 23 years old and build an additional 1200 hours of flight experience. Major airlines, the ultimate career goal for most pilots, also require a bachelor's degree for pilot employment. The situation is compounded by the fact that the student faces repayment of substantial student loans while restricted to the lowest levels of aviation employment.

The WVU Tech Aviation Management program improves this situation through two fundamental changes to the traditional collegiate flight training model. First, the flight training is accelerated with completion occurring by the end of the sophomore year. Second, academic coursework is offered online. In this model, students complete flight training in approximately twelve months at a flight training center while enrolled in a limited number of online academic courses at WVU Tech. At the completion of the second year, students qualify for work as pilots or flight instructors and begin to build flight experience toward the required 1500 flight hours. Since the program utilizes an online delivery modality, students may work at any location and are not limited to remaining at the university. Over the next two years, students continue to take the online courses necessary for the completion of their degree while building flight experience. Upon graduation the students have the necessary FAA training, approximately 1500 hours of flight experience, and a B.S. degree in Aviation Management. These qualifications provide WVU Tech students a significant advantage over their counterparts in traditional aviation programs.

The FAA has recognized the problem of aviation degree graduates lacking flight experience. In attempt to mitigate the situation, the FAA developed an exemption for students graduating from FAA approved aviation programs at accredited colleges. This exemption allows these graduates a reduction in age from 23 to 21 years and in flight time from 1500 hours to 1000 hours. The documentation outlining this process is published in Federal Aviation Administration Advisory Circular AC No: 61-139. This document was published on August 7, 2013 and outlines the process and requirements institutions of higher learning must follow in order for qualified graduates to receive the flight experience reduction. A copy is included in Appendix V.

This proposal is designed to meet the requirements of AC No; 61-139, allowing qualified graduates to begin airline employment at age 21 with as little as 1000 flight hours. For individual students that may not qualify under AC 61-139, the program still offers online delivery of academic courses and training at the country's best flight training organizations while students work toward their college degree. These students will also graduate with approximately 1500 flight hours allowing them to meet the FAA minimum flight time requirements, even without a flight experience reduction.

Projected Need

The Bureau of Labor Statistics (BLS) estimates an average growth rate of 11% and the need for 11,500 new airline and commercial pilots in the period between 2010 and 2020. The BLS lists 2010 median wages for airline pilots as \$103,210 per year and \$67,500 per year for commercial pilots (http://www.bls.gov/ooh/transportation-and-material-moving/airline-and-commercial-pilots.htm).

In 2013, the Boeing Aircraft Company projected a global need for 498,000 new commercial airline pilots by 2032, up from a 2012 projection of 460,000 pilots (http://www.boeing.com/commercial/cmo/pilot_technician_outlook. html).

A 2013 Aviation Accreditation Board International (AABI) investigation of the US airline pilot labor supply conducted by representatives of the University of North Dakota, the University of Nebraska Omaha, Embry Riddle Aeronautical University, Southern Illinois University, Letourneau University and Middle Tennessee State University concluded that the United States faces a shortage of 35,000 airline pilots between 2013 and 2031 (http://www.aabi.aero/AirlinePilotLaborSupply1.pdf).

At the 2013 World Aviation Training Conference and Tradeshow on April 17, 2013, industry experts Captain Jim Winkley, Vice President of Flight Operations at American Eagle Airlines, and Captain Paul Preidecker, Chief Flight Instructor at Air Wisconsin, highlighted the growing pilot shortage. Both reported that past predictions of an impending pilot shortage have been realized. Among the challenges facing the airline industry are a very limited pool of pilot applicants, poor quality applicants (50% of the applicants scheduled for interviews failed to appear at the interview), a declining interest in aviation among young people, and an increasingly poor work ethic among applicants. Bob Reding, Senior Advisor to the CEO at Flight Safety International also emphasized the current pilot shortage and challenges in training a new generation of pilots and support personnel. Other industry experts testified that the regional airlines will continue to face pilot shortages and that the major airlines will also be faced with severe hiring challenges in approximately two years. As hiring increases at the major airlines, regional airlines will face critical shortages of qualified pilots as more regional pilot upgrade to the major carriers. Both Preidecker and Winkley extended invitations to WVU Tech officials to visit their respective training facilities to discuss the training process and the needs of the applicants and the airlines.

E. Cooperative Agreements

WVU Tech will establish cooperative agreements with aviation industry partners to make flight training available to WVU Tech aviation students. Discussions are underway with CAE Oxford Aviation Academy, and Airline Transport Professionals. It is anticipated that WVU Tech will successfully conclude a relationship with at least one of these organizations by the fall of 2014 with more to follow as the program expands.

F. Alternatives to Program Development

No alternatives to this program were considered.

Part III. Program Implementation and Projected Resource Requirements

A. Program Administration

The Aviation Management program will reside in the WVU Tech College of Business, Humanities and Sciences. The academic administrative structure includes the department chair, college dean, campus associate provost, and the campus chief executive officer (CEO). Academic and curriculum issues will be addressed on the WVU Tech campus by the department faculty, BHSS College Curriculum Committee, and the WVU Tech Academic Affairs Committee. The dean, the associate provost, and the CEO must endorse changes prior to final approval, especially in cases with resource implications. The dean and associate provost manage the academic decision-making process.

B. Program Projections

An estimate of the size of the Aviation Management program by headcount is 40 students in the first year, 92 in the second year, 161 in the third year, 233 in the fourth year, and 277 in the fifth year. These estimates are based on data from the flight training providers, the popularity of programs in other states, and the projections in the BLS and Boeing studies. It is anticipated that 95% of the students in the program will not reside in West Virginia. Students may be admitted into the program as freshman or by transfer from accredited institutions of higher education by meeting WVU Tech's admission requirements for entry into a baccalaureate program. For students enrolling in flight training courses, additional Federal Aviation Administration standards apply. See page 13 for admissions standards.

C. Faculty Instructional Requirements

This proposal includes 25 new courses. Of these 25 courses, 3 are Professional Field Experience conducted by the flight training partner, and will not require additional faculty. The number of courses in this proposal also allows for elective options for individuals that may not have the interest or funding to complete the maximum allowable flight training.

Once the program is fully implemented, the projected course load will require 3.75 Full Time Equivalent (FTE) faculty per semester. The program will require in its first year one full-time faculty/director position and 1.75 FTE faculty. In the second year and beyond, 3.75 FTE faculty will be necessary to meet the enrollment targets established for the program. WVU Tech currently employees the personnel necessary for the program's introduction and operation through the first year, due to its participation in a teach-out plan for Mountain State University students.

The program will make extensive use of adjunct faculty from diverse areas of the aviation industry and the military. This will assure all areas of aviation are represented and students are exposed to a variety of viewpoints and career options. WVU Tech has identified ten highly qualified adjunct faculty who are interested in long-term commitments for teaching aviation courses.

With a current student to faculty ratio of approximately 11:1, it is not anticipated that additional faculty will be necessary for GEC, business courses, and most support classes. An exception is one full-time English faculty position with the achievement of projected enrollment targets at the beginning of the second year following the introduction of the program.

D. Library Resources and Instructional Materials

Students will have access through the WVU Tech Library to online journals, books, and other instructional materials. It is estimated that no more than \$2,000 per year shall be required to support the new program. No additional library resources or instructional materials will be required.

E. Support Service Requirements

Since all classes will be provided online, no special equipment or other types of facilities are required. Online courses are supported through the existing university structure, including OIT, WVU Tech Instructional Design Office, marketing, admissions, registrar, and other offices. The Interim Aviation Program Coordinator is currently housed in COBE 319. The current space is sufficient for the first two years of the program, when a second office may be required for the additional full-time faculty/staff member. Additional space is available for the future growth of the program.

F. Operating Resource Requirements

An annual operations budget of approximately \$15,000 is projected to support and market the program. See Appendix I for more details. Funding for specialized program accreditation is unnecessary since such accreditation is not applicable.

G. Source of Operating Revenues

Operating resources will be derived from tuition and fees revenue. The program will have a new class starting each semester and the following enrollment numbers are based on headcount. However, the student hours and revenue projections make allowances for a 10 % attrition rate. Based on an estimate of 40 students in the first year, 92 in the second year, 161 in the third year, 233 in the fourth year, 277 in the fifth year, and also assuming a tuition rate of

\$375 per credit hour while excluding the cost of flight training, the program would produce tuition revenue as shown below:

First year:	877 student hours	FTE 25.2	\$328 <i>,</i> 856
Second year:	2556 student hours	FTE 69.3	\$958 <i>,</i> 347
Third year:	4613 student hours	FTE 122.5	\$1,729,951
Fourth year:	5265 student hours	FTE 139.7	\$1,974,202
Fifth year:	8128 student hours	FTE 212.5	\$3,048,031

H. Anticipated Enrollment

WVU Tech enrolled 25 former Mountain State University aviation students in a teach-out plan in calendar year 2013. Enrollment for the first year of the WVU Tech Aviation Management program is estimated to be a total of 40 students (total headcount at the end of the third semester), with a new class starting in each of the three semesters throughout the year. As stated above and illustrated in Appendix I, enrollment is expected to reach approximately 277 students (headcount) by the fifth year of the program.

I. Admissions Criteria

Applicants must meet the following minimum requirements, consistent with the West Virginia University Institute of Technology general admissions policies:

A 2.0 High School GPA and a composite ACT score of 18 (SAT 870-critical reading and mathematics combined) or a 3.0 High School GPA. Applicants must also have successfully completed the following high school units:

- 4 units of English
- 3 units of Social Studies, including US History
- 1 unit of Art
- 2 units of Foreign Languages, two units of the same language
- 4 Units of Mathematics (Algebra I & higher)
- 3 Units of Science (all must be laboratory science)

Additionally, any student enrolling in flight training courses must meet the Federal Aviation Administration requirements to hold at least a second class FAA medical certificate. Additional admissions requirements for aviation management students are under discussion with the potential flight training organizations.

Appendix I: Five-Year Projection of Operating Resources and Costs

University System Administrative Bulletin No. 23

Form 1

F		1	1		
	Year 1	Year 2	Year 3	Year 4	Year 5
	2014	2015	2016	2017	2018
Number of Students Served by Courses in program:					
a. Headcount	40	92	161	233	277
b. FTE Majors	25.2	69.3	122.5	139.7	212.5
Number of Student					
Credits From Courses					
Within The Program:	1131	3118	5541	6284	9561
Number of Majors:					
a. Headcount	40	92	161	233	277
b. FTE Majors	25.2	69.3	122.5	139.7	212.5
Number of Student					
Credit Hours from					
Majors in Program:	1133	3118	5514	6285	9561
Degrees Granted	0	13	24	28	38

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Form 2, Page 1 of 2

A. FTE Positions

Personnel	Year 1	Year 2	Year 3	Year 4	Year 5
	2014	2015	2016	2017	2018
Administrators	0.75	0.75	0.75	0.75	0.75
Full-time Faculty	0.25	1.25	1.25	1.25	1.25
Adjunct Faculty (FTE)	1.5	2.5	2.5	2.5	2.5
Graduate Assistants					
Other Personnel					
Clerical Workers	0.25	1.25	1.25	1.25	1.25
Professionals					
Other Personnel					

Note: Include percentage of time of current personnel

Personnel Services	Year 1	Year 2	Year 3	Year 4	Year 5

	2014	2015	2016	2017	2018
Administrators	\$61,725	\$67 <i>,</i> 898	\$74,687	\$82,156	\$90,372
Full Time Faculty (FTE) \$650 per hr.	\$20,575	\$102,633	\$112,896	\$124,185	\$136,604
Adjunct Faculty	\$24,700	\$29,900	\$89,700	\$89,700	\$89,700
Graduate Assistants					
Other Personnel					
Clerical Workers	\$6,793	\$6,929	\$7,067	\$7,209	\$7,353
Other Personnel		\$45,000	\$49,500	\$54,450	\$59,895
Total Salaries	\$113,793	\$252,359	\$333,850	\$357,700	\$383,923

Form 2, Page 2 of 2

Five-Year Projection of Total Operating Resources Requirements*

	Year 1	Year 2	Year 3	Year 4	Year 5
	2014	2015	2016	2017	2018
2. Office Expenses	\$6,000.00	\$6,500.00	\$8,500.00	\$9,500.00	\$10,000.00
3. Repairs and Alts.	\$1,500.00	\$1,500.00	\$1,500.00	\$1,500.00	\$1,500.00
Equipment					
Education Equip./					
Library Books	\$2,000.00	\$2,000.00	\$2,000.00	\$2,000.00	\$2,000.00
4. Nonrecurring Expense	\$6,500.00	\$6,600.00	\$6,700.00	\$6,800.00	\$6,900.00
Total Costs	\$16,000.00	\$16,600.00	\$18,700.00	\$19,800.00	\$20,400.00

C. Sources

1. General Fund (University) Appropriations

X	Reallocation		New Funds		
Year 1	Year 2	Year 3	Year 4	Year 5	
2014	2015	2016	2017	2018	
\$129,793	\$268,559	\$352,550	\$377,500	\$404,323	

2. Federal Government

Year 1	Year 2	Year 3	Year 4	Year 5
2014	2015	2016	2017	2018

3. Private Sources

Year 1	Year 2	Year 3	Year 4	Year 5
2014	2015	2016	2017	2018

4. Total All Sources

ces	Year 1	Year 2	Year 3	Year 4	Year 5
	2014	2015	2016	2017	2018
	\$129,793	\$268,959	\$352,550	\$377,500	\$404,323

NOTE: Total costs should be equal to total sources of funding

Explanation of Enrollment Methodology

The Aviation Management program will admit a new class each semester, three semesters per year. In terms of headcount, there will be 40 students in the first year with that number growing to 277 by the fifth year. However, when an allowance for attrition is factored in to the projections the first and fifth year student numbers are 36 and 213. Additionally, since the program admits a new class each semester, the projection of 40 students in the first year represents the headcount at the end of the year, not at the beginning of the first semester. Annual FTE enrollment projections are based on annual student hours divided by 45, and include a 10% per semester attrition rate.

It should also be noted that revenue projections factor in a 10% per semester attrition rate. Unless otherwise noted, revenue projections do not include flight tuition/fees, which will be forwarded to the flight training provider.

To meet the demand for faculty, WVU Tech currently employs one full-time individual tasked with development of the aviation management program. In the first year, the majority of courses offered will be from the GEC or will be flight courses, significantly reducing the demand for WVU Tech Aviation Management faculty. As the program reaches the fourth semester, demand for WVU Tech faculty will rise and additional aviation faculty will be required. Because the aviation courses are primarily delivered in the 2nd through 5th semesters, the aviation faculty teaching load will reach a peak by the 5th semester. The requirement of 3.75 FTE faculty will not change during the 3rd through 5th years of the program.

Once the program is fully implemented, the department will include two full-time, resident faculty and ten part-time (adjunct) faculty. WVU Tech has identified ten experienced aviation instructors, each of whom are qualified and available to teach online courses as adjunct faculty. Since the program relies on contracted flight training and will be delivered online, the resident faculty employment numbers are low compared to traditional programs.

The numbers in these calculations are subject to change based upon the actual student population from year to year. The resources needed to support the faculty positions will be derived primarily from revenues generated by enrollment in the program and through internal re-allocations during the initial stages of development. The initial administrative and clerical positions included above already exist and represent no additional costs. Due to the online nature of the program and the need for more intensive student contact it is anticipated that a student support position will be required in the second full year of the program.

Appendix II Curriculum Sheet

B.S. ir	n Aviati	ion I	Management					
Meets I	-AA redu	uced	aeronautical experience requirements p	per AC 6	1-139			
FAA Re	equires 6	60 hoi	urs of aviation courses.	Credit	Lower	Upper	FAA	Flight
FAA Re	equired o	course	es highlighted	Hrs.	Division	Division	Required	(PFS)
GEC			Courses					
			Total	45	42	3		
Busine	ss Cou	rses,	21 hours					
	AVIA	489	Aviation Law	3		3	3	
	AVIA	486	Aviation Management & Leadership (capsto	3		3		
	BCOR	350	Principles of Marketing	3		3		
	BCOR	370	Managing Individuals and Teams	3		3		
	MANG	330	HR Management Fundamentals	3		3		
	MANG	350	Leadership in Business	3		3		
	MANG	422	The Individual and the Organization	3		3	3	
			Totals	21				
Aviatio	n Cours	ses, 1	l8 hours					
	AVIA	380	Aviation Weather	3		3	3	
	AVIA	382	Aerody namics and Aircraft Performance	3		3	3	
	AVIA	383	Aircraft Systems	3		3	3	
	AVIA	480	Human Factors in Flight	3		3	3	
	AVIA	484	Aviation Safety	3		3	3	
	AVIA	385	Air Traffic Control and Airspace	3		3	3	
			Totals	18				
Flight	Courses	s, 24	hours					
	AVIA	101	Private Pilot	3	3		3	
	AVIA	191	Professional Field Experience (Private)	3	3		3	3
	AVIA	201	Instrument Rating	4	4		4	
	AVIA	291	Professional Field Experience (Instrument)	3	3		3	3
	AVIA	231	Commercial Pilot	4	4		4	
	AVIA	291	Professional Field Experience (Commercial	4	4		4	4
	AVIA	241	Multi-Engine Rating	2	2		2	
	AVIA	291	Professional Field Experience (Multi-Engine	1	1		1	1
			Totals	24				
Aviatio	n Electi	ives,	12 hours					
	AVIA	301	Principles of Aviation Instruction	3		3		
	AVIA	302	Initial Flight Instructor Theory	3		3		
	AVIA	391	Professional Field Experience (Instructor)	1		1		1
	AVIA	304	Instrument Flight Instructor	2		2		
	AVIA	391	Professional Field Experience (Instrument I	1		1		1
	AVIA	306	Advanced Flight Instructor	1		1		
	AVIA	391	Professional Field Experience (Advanced I	1		1		1
	AVIA	351	Crew Resource Management	3		3		
	AVIA	352	ATP/Turbine Aircraft Operations	3		3		
	AVIA	391	Professional Field Experience (ATP)	3		3		1
	AVIA	483	Air Transportation	3		3		
	AVIA	485	Airline Economics	3		3		
	AVIA	487	Airline Security	3		3		
	AVIA	488	Aviation Stories	3		3		
			Elective Total	12		12	12	12
Totals				120	66	54	60	15

		B.S. in Aviation Managen	nent S	ample I	Mat	riculation Sequence	
First	Sem	nester		Seco	nd S	Semester	
AVIA	101	Private Pilot	3	AVIA	201	Instrument Rating	4
AVIA	191	Professional Field Experience	3	AVIA	291	Professional Field Experience (Instrument)	3
GEC	3	The Past and its Traditions	3	AVIA	380	Aviation Weather	3
GEC	1A	Communication	3	GEC	1B	Communication	3
GEC	6	First Year Seminar	1				
			13				13
Thirc	l Ser	nester		Four	th S	emester	
AVIA	231	Commercial Pilot	4	AVIA	***	Restricted Elective	3
AVIA	291	Professional Field Experience (Commercia	4	AVIA	***	Restricted Elective	3
AVIA	241	Multi-Engine Rating	2	AVIA	***	Restricted Elective	3
AVIA	291	Professional Field Experience (Multi-Engine	1	AVIA	***	Restricted Elective	3
AVIA	382	Aerody namics and Aircraft Perf.	3				
			14				12
Fifth	Sen	nester		Sixth	Ser	mester	
AVIA	385	Air Traffic Control and Airspace	3	AVIA	480	Human Factors in Flight	3
AVIA	484	Aviation Safety	3		383	Aircraft Systems	3
BCOR	370	Managing Individuals and Teams	3	BCOR	350	Principles of Marketing	3
GEC	2B	Lab Science Course	4	GEC	2A	Math and Statistics	3
GEC	2C	GEC 2 Group C CIS 101	4	GEC	2B	Lab Science Course	3
				GEC	5	Artistic Expression	3
			17				18
Seve	nth	Semester		Eight	th Se	emester	
GEC	6	The Individual in Society	3	AVIA	486	Aviation Systems Management	3
GEC	7	American Culture	3	AVIA	489	Aviation Law	3
GEC	8	Western Culture	3	GEC	1C	Writing Course	3
MANG	330	HR management Fundamentals	3	GEC	9	Non-Western Culture	3
MANG	350	Leadership in Business	3	MANG	422	The Individual and the Organization	3
				GEC	4	Contemporary Society	3
			15				18
						Iotal Program Hrs	120

Appendix III: Sample Matriculation Sequence

Appendix IV: New Course Summaries

AVIA 101 Private Pilot (3-0) 3

Provides the knowledge and skills needed to obtain a FAA private pilot certificate. Topics include aerodynamics, systems, regulations, airspace, performance, weather, flight publications, navigation, basic flight physiology, and flight safety. Flight training necessary to develop the basic skills necessary to operate a single engine aircraft as a private pilot.

AVIA 181 Professional Field Experience (0-3) 3

Flight training conducted in conjunction with AVIA 101 Private Pilot necessary obtain a FAA private pilot certificate.

AVIA 201 Instrument Rating (4-0) 4

Provides the knowledge required for an instrument rating. Includes instrument flight regulations, air traffic control system and procedures, instrument navigation and approaches, charts, weather, safety, aeronautical decision making, and crew resource management.

AVIA 231 Commercial Pilot (4-0) 4

Provides knowledge and skills required to obtain a FAA commercial pilot certificate. Topics include regulations, aerodynamics, meteorology, performance, limitations, pilotage, dead reckoning, navigation aids, aeronautical decision making, aircraft systems, night and high altitude operations, and commercial maneuvers.

AVIA 241 Multi-Engine Rating (2-0) 2

Provides the knowledge and skills necessary to safely and proficiently exercise the privileges and responsibilities of a multi-engine aircraft rating. Includes multi-engine aircraft systems, multi-engine aerodynamics, weight and balance, aircraft performance, and abnormal/emergency procedures.

AVIA 281 Professional Field Experience (0-8) 8 Flight training conducted in conjunction with most AVIA 200 level courses.

AVIA 301 Principles of Aviation Instruction (3-0) 3

Addresses the fundamentals of learning, lesson plans, and the teaching environment. Emphasis is placed on the organization, composition and presentation of lessons to individuals and groups in preparation for Fundamentals of Instruction knowledge examination.

AVIA 302 Initial Flight Instructor (3-0) 3

The academic and aeronautical knowledge necessary to conduct flight and ground instruction. Includes subject areas necessary for a private and commercial pilot training, intensive instruction and practice in lesson plans, in-flight instruction, debriefing, and analysis.

AVIA 304 Instrument Flight Instructor (3-0) 3

A study of the material required to teach the instrument rating combined with teaching responsibilities and techniques, including in-flight procedures. Topics include regulations, air traffic control, navigation, instrument approach procedures, weather, ADM, and CRM.

AVIA 306 Advanced Flight Instructor (1-0) 1

A detailed study of the requirements for adding an additional aircraft rating to the flight instructor certificate. This course includes the specifications of the aircraft to be added, consideration of flight training differences, safety factors, effective evaluations, and flight instructor responsibilities.

AVIA 351 Crew Resource Management (3-0) 3

A study of human interactions that affect the safety of flight. Coursework emphasizes crew coordination, situational awareness, communication, workload management, decision-making, and human error management essential to the safe operation of a professional crew.

AVIA 352 ATP/Turbine Aircraft Operations (2-0)

This course includes an in-depth study of regional jet systems, FMS navigation, airline-level crew resource management and airline standard operating procedures. The topics covered apply to many regional jet aircraft and some turbo prop aircraft.

AVIA 380 Aviation Weather (3-0) 3

A study of weather, especially as it relates to aviation, with emphasis on weather concepts, reporting systems, forecasting systems, hazards, weather and flight planning, weather in relation to aircraft performance, and weather reporting hardware and software.

AVIA 382 Aerodynamics and Aircraft Performance (3-0) 3

A study of the fundamental principles of aerodynamics and aircraft performance. Includes terminology; the four forces of flight; aerodynamic stall and its relation to angle of attack and airspeed; stability and control; weight and balance; and flight at slow, transonic, and supersonic speeds. Performance topics include propeller and turbine performance, operation at high altitudes, and operation in extreme environmental conditions.

AVIA 383 Aircraft Systems (3-0) 3

A detailed study of basic and advanced aircraft systems, including piston and turbine power plants, electrical, hydraulic, fuel, lubrication, pneumatic, ignition, pressurization, landing gear, environmental, fire detection/extinguishing, flight control, and brake systems.

AVIA 385 Air Traffic Control and Airspace (3-0) 3

Designed to provide a detailed understanding of the interrelationship between the national airspace system and air traffic control (ATC), this course includes an overview of the U.S air traffic control system, types of airspace, ATC communication systems, ATC procedures, FAA ATC regulations, navigational equipment and operation, control tower operations, TRACON and center operations, non-radar operations, and environmental issues.

AVIA 381 Professional Field Experience (0-7) 7

Flight training conducted in conjunction with AVIA 200 and or 300 level courses.

AVIA 480 Human Factors in Flight (3-0) 3 F

A comprehensive look at human factors in aviation, including human error; CRM; fatigue; body rhythms; decision making; fitness and performance; vision and visual illusions; motivation and leadership; communication; attitudes; workload management; training and training devices; education and application.

AVIA 483 Air Transportation (3-0) 3 F

A study of both the historical and present aviation industry. Subjects include air commerce, domestic and international aviation regulation and regulatory agencies, legal issues in air transportation, air carrier aircraft, and general aviation aircraft.

AVIA 484 Aviation Safety (3-0) 3 F

Provides practical guidance on safe aviation operations during routine and unexpected situations. Includes judgment and decision skills, safety studies, safety management systems, accidents and incidents, contributing factors, managing resources, communication, accident investigation, and emergency situations.

AVIA 485 Aviation Economics (3-0) 3 S

A study of management practices in the airline industry. Topics include output, unit cost, traffic and yield, operating expenses and revenues, and the corresponding relationships that drive profit and loss.

AVIA 486 Aviation Management and Leadership (3-0) 3 S

Explores management methods used by aviation crews, management, suppliers, service providers, and manufacturers. Focuses on decision analysis, decision research, peer-to-peer communication, sales management, emotional intelligence, and the Johari Window.

AVIA 487 Aviation Security (3-0) 3 S

Presents basic information on security issues and concerns in the aviation industry. Includes the historical aspects of aviation security, information on current security operations, and information on the security tools used within the industry.

AVIA 488 Aviation Stories (3-0) 3 S

Develops an understanding of how flying has come to be incorporated into literature since the early days of flight. Includes readings from books, journals, and memoirs that deal with the human side of flying.

AVIA 489 Aviation Law (3-0) 3

An overview of the basic principles of aviation law within the US legal system. Areas of emphasis include constitutional law, administrative law, enforcement actions, international

law, aircraft accidents, aircraft transactions, airports, airspace and aviation security, and labor and employment law.

AVIA 493 A-Z Special Topics 1-6 Hrs. Investigation of topics not covered in regularly schedule courses.

Appendix V: FAA Advisory Circular AC No: 61-139



Advisory Circular

Subject: Institution of Higher Education's Application for Authority to Certify its Graduates for an Airline Transport Pilot Certificate with Reduced Aeronautical Experience Date: 7/12/13 Initiated by: AFS-800 AC No: 61-139

) Change:

1. PURPOSE. This advisory circular (AC) provides instructions for institutions of higher education on how to obtain authority to certify students who graduate from the institution's degree program with an aviation major and otherwise meet the requirements of Title 14 of the Code of Federal Regulations (14 CFR) part 61, § 61.160(b), (c), or (d). Graduates of an institution of higher education that has received Federal Aviation Administration (FAA) authorization to certify graduates may be eligible to apply for a restricted privileges airline transport pilot (ATP) certificate. The total flight time requirements for a restricted privileges ATP Certificate based on a degree with an aviation major are:

- 1,000 hours for a graduate who holds a bachelor's degree with an aviation major and meets the remaining requirements of § 61.160(b);
- 1,250 hours for a graduate who holds an associate's degree with an aviation major and meets the remaining requirements of § 61.160(c); and
- 1,250 hours for a graduate who holds a bachelor's degree with an aviation major and meets the remaining requirements of § 61.160(d).

2. RELATED 14 CFR SECTIONS. Sections 61.1, 61.39, 61.55, 61.153, 61.155, 61.156, 61.157, 61.159, 61.160, 61.165, 61.167, 61.169 and part 141, §§ 141.26 and 141.27.

3. DEFINITIONS.

a. Accredited. As defined by the Department of Education in Title 34 of the Code of Federal Regulations (34 CFR) part 600, § 600.2, the status of public recognition that a nationally recognized accrediting agency grants to an institution or educational program that meets the agency's established requirements.

b. Academic Areas. The aviation courses that should be satisfactorily completed at an institution of higher education for a student to meet the requirements of § 61.160.

c. Aviation Coursework Mapping. This is the requirement on the application for an institution of higher education to list all of its aviation and aviation-related courses offered that will improve and enhance the knowledge and skills of a person seeking a career as a professional pilot. In addition, a description of each course, the number of semester credits, and identifying

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which academic area, identified in paragraph 9 of this AC, the course addresses must also be included.

d. Institution of Higher Education. As defined in 34 CFR part 600, § 600.4. An institution of higher education must be listed in the Database of Accredited Postsecondary Institutions and Programs. The list is administered by the U.S. Department of Education Office of Postsecondary Education and can be found at http://ope.ed.gov/accreditation/.

e. Restricted Privileges ATP Certificate. An ATP Certificate that is subject to the limitations set forth in § 61.167(b). To be eligible a pilot must meet the requirements in §§ 61.153 and 61.160.

f. Substantial Change. Any information on the letter of authorization (LOA) issued by the FAA to the institution of higher education that changes and therefore requires a revised LOA to be issued. This includes the removal, addition, or modification of a degree program with an aviation major, and changes to aviation and aviation-related coursework, that affects the LOA or the certifying statement that an institution of higher education places on a graduate's transcript or other authorized document. A revised application must be submitted for a substantial change as described in paragraph 18 of this AC.

g. Training Agreement. A statement signed by both an institution of higher education and a part 141 pilot school that describes the terms for which academic training and flight training will be provided to a student.

h. Training Course Outline (TCO). An overview document that details the form, methodology, and content of a course of training. The document meets the requirements of part 141 subpart C and is submitted to the FAA for the issuance of a pilot school certificate or provisional pilot school certificate and ratings.

4. PROGRAM REQUIREMENTS. Section 61.160 prescribes the minimum requirements that a student must complete as part of a degree program with an aviation major to be eligible for a restricted privileges ATP Certificate. The program must include flight and ground training for a commercial pilot certificate in the airplane category and an airplane instrument rating. To receive the authority from the FAA to certify eligible students, the institution of higher education must demonstrate its degree program(s) can satisfy the following:

a. Bachelor's Degree with an Aviation Major (§ 61.160(b)).

(1) The institution of higher education must be accredited; and

(2) Include at least 60 semester credit hours of aviation and aviation-related coursework that has been recognized by the Administrator as coursework designed to improve and enhance the knowledge and skills of a person seeking a career as a professional pilot and outlined in paragraph 9 of this AC; and

(3) Hold either of the following:

(a) A part 141 pilot school certificate with a TCO(s) approved for flight and ground training; or

(b) A part 141 pilot school certificate with a TCO(s) approved for ground training only and have a formal training agreement with a part 141 pilot school with a TCO approved for flight training.

b. Associate's Degree with an Aviation Major (§ 61.160(c)).

(1) The institution of higher education must be accredited; and

(2) Include at least 30 semester credit hours of aviation and aviation-related coursework that has been recognized by the Administrator as coursework designed to improve and enhance the knowledge and skills of a person seeking a career as a professional pilot and outlined in paragraph 9 of this AC; and

(3) Hold either of the following:

(a) A part 141 pilot school certificate with a TCO(s) approved for flight and ground training; or

(b) A part 141 pilot school certificate with a TCO(s) approved for ground training only and have a formal training agreement with a part 141 pilot school with a TCO approved for flight training.

c. Bachelor's Degree with an Aviation Major (§ 61.160(d)).

(1) The institutions of higher education must be accredited; and

(2) Include at least 30 semester credit hours of aviation and aviation-related coursework that has been recognized by the Administrator as coursework designed to improve and enhance the knowledge and skills of a person seeking a career as a professional pilot and outlined in paragraph 9 of this AC; and

(3) Hold either of the following:

(a) A part 141 pilot school certificate with a TCO(s) approved for flight and ground training; or

(b) A part 141 pilot school certificate with a TCO(s) approved for ground training only and have a formal training agreement with a part 141 pilot school with a TCO approved for flight training.

5. RELATED READING MATERIALS (current editions).

a. AC 61-138, Airline Transport Pilot Certification Training Program. This AC provides the aeronautical knowledge that must be obtained by the applicant in order to meet the prerequisites for an ATP knowledge test that is taken after July 31, 2014.

Par 4

7/12/13

7/12/13

NOTE: If the ATP knowledge test is satisfactorily completed prior to August 1, 2014, the ATP Certification Training Program (CTP) need not be completed, provided the practical test is successfully completed within 24 calendar-months of completing the ATP knowledge test.

b. AC 61-65, Certification: Pilots and Flight and Ground Instructors. Stakeholders can find additional information regarding original pilot certification and addition of category, class, and type ratings in AC 61-65.

c. AC 61-89, Pilot Certificates: Aircraft Type Ratings. Guidance on advanced training criteria is available in AC 61-89. The FAA, commercial sources, and industry associations provide other media on pilot certification and eligibility.

d. AC 141-1, Pilot School Certification. Institutions may need to apply for a part 141 pilot school certificate. Guidance on the certification process for a pilot school is contained in AC 141-1.

e. Airman Knowledge Test Guides. Institutions may choose to incorporate elements of the airman knowledge test guides into a degree program with an aviation major. The information contained in the guides is critical for an applicant to have a thorough understanding of the concepts and tasks that are associated with the minimum aeronautical knowledge for a certificate or rating.

f. Practical Test Standards (PTS). Institutions may choose to incorporate elements of the PTS into the coursework of a degree program with an aviation major. The applicant should have a thorough understanding of the concepts and tasks outlined in the PTS that are associated with the minimum knowledge and skill level for a certificate or rating.

6. BACKGROUND.

a. Public Law (PL). The Airline Safety and Federal Aviation Administration Extension Act of 2010 (PL 111-216) mandated that all pilots in 14 CFR part 121 operations hold an ATP Certificate by August 2, 2013. PL 111-216 also required the FAA revise the ATP Certificate requirements and included a provision that permitted the Administrator to allow specific academic training courses to be credited towards the minimum aeronautical experience requirements for an ATP Certificate.

b. FAA Regulations. As a result of the PL, the FAA created § 61.160, Aeronautical Experience – Airplane Category Restricted Privileges, which enables a pilot, in certain situations, to obtain an ATP Certificate with reduced total time as a pilot based on academic experience. Specific paragraphs in § 61.160 enable a graduate of a degree program with an aviation major to be eligible for a restricted privileges ATP Certificate, provided they receive a certifying statement from the institution of higher education. Section 61.169 provides the requirements for the institution of higher education to obtain the authority from the FAA to issue a certifying statement to its graduates. Without a certifying statement from the institution of higher education, a student may not apply for a restricted privileges ATP Certificate under the total time as a pilot requirements of § 61.160(b), (c), or (d).

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7. GENERAL PROCESS FOR AN INSTITUTION OF HIGHER EDUCATION SEEKING AUTHORIZATION.

a. Requirements. In accordance with § 61.160, an institution of higher education must hold:

(1) A part 141 pilot school certificate with a TCO(s) approved for ground and flight training; or

(2) A part 141 pilot school certificate with a TCO(s) approved for ground only and have a formal training agreement in accordance with § 141.26(b) with a part 141 pilot school that provides the flight training for the institution of higher education.

b. Submit Application. Any institution of higher education that chooses to obtain authority to certify its students for an ATP Certificate under the requirements in § 61.160 must submit an application to the FAA demonstrating that its degree program(s) has met all of the program requirements listed in § 61.160 and paragraph 4 above, as applicable. The aviation coursework mapping section of the application must be fully documented and retained by the institution of higher education and the FAA.

c. LOA Issued. The FAA will issue an LOA based on a determination that the information supplied in the application meets the regulatory requirements of § 61.160. The institution of higher education must receive an LOA from the FAA which grants authority to give its graduates a certifying statement. The institution of higher education must determine that the graduate has met the applicable requirements of § 61.160 before the certifying statement can be placed on the transcript or other document authorized by the FAA.

d. Continued Compliance. In an effort to ensure that an institution of higher education maintains the level of competency for which they were initially authorized, the FAA will revalidate the LOA on a regular basis, and may conduct ad hoc evaluations as needed, as described in paragraph 18 below. In addition, in accordance with § 61.169(c), the FAA may rescind or amend an LOA if the institution of higher education is not complying with or is unable to comply with the provisions of the LOA. This includes any substantial changes made by the institution of higher education to the academic program or changes that affect the LOA that requires notification to the FAA.

e. Electronic Format. To the extent possible, institutions of higher education should use an electronic format for submissions and correspondence.

8. INSTITUTION OF HIGHER EDUCATION REQUIREMENTS. In accordance with § 61.169, an institution of higher education must be accredited, as defined in § 61.1, by a nationally recognized accrediting agency. Accreditation ensures that education provided by institutions of higher education meets acceptable levels of quality. Accrediting agencies, which are private educational associations of regional or national scope, develop evaluation criteria and conduct peer evaluations to assess whether or not those criteria are met. According to the Council of Higher Education Accreditation (CHEA), accredited status is a signal to students and the public that an institution meets at least threshold standards for its faculty, curriculum, student services, and libraries.

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9. ACADEMIC AREAS. A graduate from a degree program with an aviation major who meets the requirements of § 61.160(b), (c), or (d) is eligible to apply for a restricted privileges ATP Certificate. Section 61.160(b), (c), or (d) requires that a graduate complete a specific number of credit hours in aviation coursework that has been recognized by the FAA as coursework designed to improve and enhance the knowledge and skills of a person seeking a career as a professional pilot.

a. Aviation and Aviation-Related Courses and Subject Areas. To assist institutions of higher education in determining whether a course meets the requirements, the FAA has identified several aviation and aviation-related courses and subject areas that are essential to prepare a student for a career as a professional pilot. The institution of higher education should offer, at a minimum, coursework in the academic areas listed in this section. The institution of higher education will then be responsible for certifying that a graduate has successfully completed the coursework and he or she meets the requirements of the appropriate paragraph of § 61.160. The following list includes key academic subject areas in aviation that a graduate should have completed as part of their degree program with an aviation major:

(1) Ground and Flight Training for Certificates and Ratings.

(a) Courses listed within this academic area should be designed to develop the knowledge and skills necessary to safely and proficiently exercise the privileges and responsibilities of an FAA certificate and/or rating.

(b) General areas that should be discussed in ground and flight training include the aeronautical knowledge areas identified for the specific certificate or rating sought. Those areas may include, but are not limited to, the following:

- Instructor-led discussions concerning aeronautical decision-making (ADM), crew resource management (CRM), aerodynamics, airworthiness, aeromedical factors, night and high altitude operations, weather hazards and reports, airport operations, flight planning, weight and balance (W&B), aircraft performance and limitations, aircraft systems and abnormal/emergency procedures. Additionally, the courses should include scenario based training to simulate more closely the actual flight conditions known to cause most fatal General Aviation (GA) accidents.
- An introduction and overview to the 14 CFR sections governing the applicable parts and subparts to the certificate or rating being instructed.

(c) General topics that can be considered under this academic area should result in the student being administered an FAA knowledge test or practical test for a certificate or rating.

NOTE: To be eligible for a restricted privileges ATP Certificate under § 61.160(b), (c), or (d), a student is required to complete the ground and flight training for a commercial pilot certificate (airplane category) and airplane instrument rating as part of an aviation degree program in accordance with § 61.160(b)(3) or (c)(3).

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(2) Aerodynamics and Aircraft Performance.

(a) Courses listed within this academic area should be designed for a pilot to understand the principles of airplane aerodynamics and aircraft performance.

(b) General courses such as physics may satisfy this academic area requirement provided the course description clearly indicates that aerodynamics and/or aircraft performance are the primary focus of the course.

(c) General areas that should be discussed for aerodynamics and aircraft performance include but are not limited to the following:

- Aerodynamics and terminology with emphasis on lift, weight, thrust, and drag forces acting upon an airplane in flight; calculation of stall speed; W&B; stability and control; operating data; low speed aerodynamics, fundamentals associated with transonic and supersonic flight.
- Aircraft performance requirements; performance of aircraft powered by reciprocating, turboprop, or jet turbine engines; special flight conditions often experienced by commercial pilots of fixed-wing aircraft; configuration changes.

(3) Aircraft Systems.

(a) Courses listed within this academic area should be designed for a pilot to understand and explain basic and advanced aircraft systems.

(b) Courses may include aircraft systems associated with aircraft that are powered by reciprocating, turbine, or jet engines.

(c) General areas that should be discussed for aircraft systems may include but are not limited to the following:

- Engines.
- Systems such as propeller, electrical, environmental, hydraulic, pneumatic, fuel, ignition, lubrication, and pressurization systems, hydraulic systems, air conditioning and heating systems, oxygen systems, landing gear systems, brake systems, ice and rain detection/protection systems, fire detection/extinguishing systems, fuel systems, and flight controls.

(4) Aviation Human Factors.

(a) Courses listed within this academic area should be designed for a pilot to understand and identify human performances that affect aviation.

(b) General areas that should be discussed throughout an aviation human factors course may include but are not limited to the following:

- Decision-making, situational awareness, crew coordination, communication, human error, fatigue, fitness, attitudes, training devices, controls, workload management.
- CRM.
- Man/machine interference that may include pilot/aircraft interference or flight deck/cockpit design.

(5) Air Traffic Control (ATC) and Airspace.

(a) Courses listed within this academic area should be designed for a pilot to understand and apply critical elements of ATC within the National Airspace System (NAS).

(b) General areas that should be discussed throughout a course of the NAS may include but are not limited to the following:

- A fundamental knowledge of the ATC system in the United States.
- Navigational aids; airspace; communications; the Code of Federal Aviation Regulations; ATC procedures; control tower operations; nonradar operations; radar operations; and differing types of environmental concerns within a geographic area.

(6) Aviation Law and Regulations.

(a) Courses listed within this academic area should be designed for a pilot to understand and apply 14 CFR.

(b) General areas that should be discussed throughout a course in aviation law and regulations may include but are not limited to: constitutional law, administrative law, enforcement actions, and international law affecting aviation. Additionally, courses may include the consideration and analysis of aviation regulatory environments and processes, such as regulatory certifications, rulemaking, and legislation.

(7) Aviation Weather.

(a) Courses listed within this academic area should be designed for a pilot to understand and apply weather as it relates to operation of an aircraft.

(b) General areas that should be discussed throughout a course of aviation weather may include but are not limited to a study of weather, concepts of weather, weather hazards, meteorological flight planning, aviation weather equipment, and consideration of weather conditions as they relate to aircraft and flight performance.

(8) Aviation Safety.

(a) Courses listed within this academic area should be designed for a pilot to understand and identify safety issues affecting the operation of flight.

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(b) General areas that should be discussed throughout a course in aviation safety may include but are not limited to a review of incidents, accidents, safety studies, and accident investigations with a focus on causal and contributing factors to those investigated events and any resulting changes to mitigate future risk. It may also include lectures on CRM, aviation safety programs, and risk management.

(c) The focus of the course could be aviation safety within an airline, flight school, airport, aircraft, and ATC system.

b. Validating a Graduate's Academic Coursework. The institution of higher education must validate that a student has completed the requisite amount of aviation semester credit hours prescribed in § 61.160 in courses that were recognized by the FAA, as part of the aviation coursework mapping process, as coursework designed to enhance and improve the knowledge and skills of a person seeking a career as a professional pilot. If the institution of higher education determines that all of the requirements have been met, it should provide the certifying statement through an official transcript or other authorized means to the graduate of the degree program with an aviation major or the FAA.

10. INTEGRATED FLIGHT TRAINING. Section 61.160 requires a student to complete commercial and instrument ground training from an approved part 141 curriculum at the institution of higher education. It also requires the student to complete commercial and instrument flight training as part of an approved part 141 curriculum at the institution of higher education or at a part 141 pilot school that has a training agreement under § 141.26 with the institution of higher education. The purpose of this requirement is to have comprehensive flight training curricula integrated with a student's ground training as part of an FAA-approved part 141 program. It also ensures the ground and flight training are integrated into the student's broader academic education as part of a degree program with an aviation major.

a. Information Provided by an Institution of Higher Education. As part of the application, an institution of higher education should provide the following information in accordance with § 61.160:

(1) A part 141 pilot school certificate with a TCO(s) approved for ground and flight training; or

(2) A part 141 pilot school certificate with a TCO(s) approved for ground only and have a formal training agreement in accordance with § 141.26(b) with a part 141 pilot school that provides the flight training for the commercial pilot certificate and instrument rating on behalf of the institution of higher education.

NOTE: If the institution of higher education uses a separate part 141 pilot school to provide the flight training for students enrolled in their degree program, the formal training agreement must be in place and submitted to the FAA at the time of application.

b. Integrated Ground and Flight Training. The ground and flight training will be considered integrated with the broader academic curriculum if:

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(1) The institution of higher education provides ground training on the appropriate aeronautical knowledge areas, according to their approved TCO at the part 141 pilot school.

(2) The institution of higher education provides training on the aeronautical knowledge areas utilizing instructors employed by the institution of higher education.

(3) The flight instructors providing the flight training required by $\S 61.160$ will be employed by the institution of higher education or the part 141 pilot school associated with the institution of higher education that is conducting the flight training.

(4) The flight training should be conducted concurrently with the aeronautical knowledge training. The flight training for the commercial pilot certificate and instrument rating should be taken concurrently with the associated ground training—academic credit should be obtained within the same semester. For example, an institution of higher education should ensure that a student enrolled in flight training for a commercial pilot certificate is also enrolled in the institution of higher education's commercial pilot ground school during the same semester.

(a) The institution of higher education should ensure the course description in the application specifically states it is the commercial pilot ground school or instrument rating ground school and how the associated flight training is linked. The FAA understands that not all programs organize their ground and flight training courses the same way. The FAA recognizes some schools require students to register for a ground school course and a separate flight lab for credit while others incorporate it all into one course. In some cases the ground and flight training for a commercial pilot certificate are spread out over several courses. Be sure the application provides enough detail for the FAA to understand how the ground and flight training meet the requirements of § 61.160.

(b) The FAA recognizes that unforeseen circumstances may prevent a student from completing the flight training in the same semester as the ground school. For example, weather, maintenance, or another situation that is out of the control of the student and the institution of higher education, may cause the flight training to extend into the next semester, which may overlap the academic portion of another certificate or rating. While it is expected that an institution of higher education will make every effort to adhere to the proposed program, a student should not be considered ineligible for a restricted privileges ATP Certificate as a result of the circumstances described in this paragraph.

11. GRADUATES OF A DEGREE PROGRAM WITH AN AVIATION MAJOR.

a. Graduates with a Bachelor's Degree with an Aviation Major.

(1) A graduate with a bachelor's degree in an aviation major is eligible to make application for a restricted privileges ATP Certificate with a minimum of 1,000 hours total time as a pilot if the graduate has satisfied the requirements of § 61.160(b). The graduate must have obtained a commercial pilot certificate with an airplane category and instrument rating from a part 141 pilot school associated with an institution of higher education and completed at least 60 semester credit hours including the academic areas outlined in paragraph 9 of this AC. An official transcript or other document acceptable to the Administrator from the institution of higher education certifying the graduate has met the requirements in § 61.160(b) is also required.

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(2) A graduate with a bachelor's degree in an aviation major is eligible to make application for a restricted privileges ATP Certificate with a minimum of 1,250 hours total time as a pilot if the graduate has satisfied the requirements of § 61.160(d). The graduate must have obtained a commercial pilot certificate with an airplane category and instrument rating from a part 141 pilot school associated with an institution of higher education and completed at least 30 semester credit hours including the academic areas outlined in paragraph 9 of this AC. An official transcript or other document acceptable to the Administrator from the institution of higher education certifying the graduate has met the requirements in § 61.160(d) is also required.

(3) Once a student has completed the aviation coursework and the associated flight training and graduated with a degree in an aviation major from an institution of higher education with the authority to certify its students under § 61.169, the graduate will have gained the knowledge on the subject areas the FAA has determined justifies a reduction in aeronautical experience for a restricted privileges ATP Certificate. The minimum aeronautical experience for a restricted privileges ATP Certificate for a graduate of a bachelor's degree program at an institution of higher education is described in § 61.160(e).

b. Graduates with an Associate's Degree with an Aviation Major.

(1) A graduate with an associate's degree in an aviation major is eligible to make application for a restricted privileges ATP Certificate with a minimum of 1,250 hours total time as a pilot if the graduate has satisfied the requirements of § 61.160(c). The graduate will need to obtain a commercial pilot certificate with an airplane category and instrument rating from a part 141 pilot school associated with an institution of higher education and completed at least 30 semester credit hours including the academic areas outlined in paragraph 9 of this AC. An official transcript or other document acceptable to the Administrator from the institution of higher education certifying the graduate has met the requirements in § 61.160(c) is also required.

(2) Once a student has completed the aviation coursework and the associated flight training and graduated with a degree in an aviation major from an institution of higher education with the authority to certify its students under § 61.169, the graduate will have gained the knowledge on the subject areas the FAA has determined justifies a reduction in aeronautical experience for a restricted privileges ATP Certificate.

(3) The minimum aeronautical experience for a restricted privileges ATP Certificate for a graduate of an associate's degree program at an institution of higher education is described in $\S 61.160(e)$.

12. TRANSFERING STUDENTS.

a. Alternative Paths. The FAA acknowledges students follow a number of different paths for completing post-secondary education at a college or university. Some students start at community colleges and transfer to 4-year degree programs while other students transfer between different 4-year institutions of higher education. The FAA does not want to deter individuals from seeking alternative paths to achieving a degree with an aviation major and therefore has determined that students who transfer into a 2-year or 4-year degree program with an aviation major could be eligible for a restricted privileges ATP Certificate. These graduates

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would be eligible for a restricted privileges ATP Certificate provided they complete the applicable requirements of § 61.160, including the semester credit hours and specified ground and flight training.

b. Transferring Between Authorized Institutions of Higher Education.

(1) In some cases, a student may transfer from one institution of higher education that has authorization to certify its graduates per § 61.169 to another institution of higher education that is also authorized to certify its graduates per § 61.169. If the receiving institution of higher education grants the student credit for coursework completed at the prior institution of higher education and can determine that the coursework has been recognized by the FAA as meeting the requirements in § 61.160, the institution may certify the student for a restricted privileges ATP Certificate so long as the student has completed the remaining requirements.

(2) If applicable, the student must verify that the institution of higher education initially attended has documented all of the academic coursework that may be transferred. That institution of higher education will provide official documentation (e.g., official transcript or other authorized means), indicating it has the authority to certify students from the FAA and that the coursework was successfully completed by the student. The institution of higher education that ultimately provides the degree to the student must certify that the coursework accepted through the transfer as well as the additional aviation coursework completed as part of its degree program meets the appropriate requirements of § 61.160. The certifying statement must be on an official transcript or other approved document and presented at the time of application for a restricted privileges ATP Certificate by the graduate.

13. APPLICATION INSTRUCTIONS. In its application, an institution of higher education must provide sufficient information to demonstrate that its students can graduate having satisfied the requirements of § 61.160. The FAA will assess the institution of higher education to ensure it offers as part of its degree program(s), aviation and aviation-related coursework designed to improve and enhance the knowledge and skills of a person seeking a career as a professional pilot. The application addresses the following areas regarding the institution of higher education.

a. Application Type.

(1) Initial. Utilized if an application for the authority to certify graduates for a restricted privileges ATP Certificate has never been submitted to the FAA by the institution of higher education.

(2) Revision. Utilized if an institution of higher education has the authority to certify its graduates and is making a substantial change as described in subparagraph 3f and further described in subparagraph 18c.

(a) If the institution of higher education chooses to remove, revise, or add a degree program or aviation major, to include changes in aviation and aviation-related coursework, a new aviation coursework mapping section must be completed within the application.

(b) If the data contained within the LOA that was issued by the FAA has changed and there are no changes to the aviation and aviation-related coursework, you may indicate

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"no change" on the application in the coursework mapping section; however the date of the last application must be noted.

(3) Reinstatement. Utilized if an institution of higher education previously held the authority to certify its graduates for the purpose of that graduate obtaining a restricted privileges ATP Certificate and is seeking reinstatement of the same degree program with an aviation major.

b. Date of Application. The date the application is submitted.

c. Institution of Higher Education Information. The name of the institution of higher education, phone number, and physical address should be provided.

d. Point of Contact (POC). The primary POC and their email address should be provided.

e. Degree Program(s).

(1) The institution of higher education should indicate the type of degree(s) offered (e.g., bachelor's degree and/or associate's degree).

(2) An institution of higher education should list the specific degree program with an aviation major a graduate will have displayed on their transcript or other approved document (e.g., Bachelor of Science with a major in commercial aviation).

f. Part 141 Pilot School Name, Certificate Number, and Location of Main Operation.

(1) In accordance with § 61.160, an institution of higher education should hold:

(a) A part 141 pilot school certificate with a TCO(s) approved for ground and flight training; or

(b) A part 141 pilot school certificate with a TCO(s) approved for ground only and have a formal training agreement in accordance with § 141.26(b) with a part 141 pilot school that provides the flight training for the institution of higher education.

(2) An institution of higher education must provide the part 141 pilot school information for both schools if it meets the requirements of subparagraph 13a(2) above.

g. Accreditation.

(1) Any institution of higher education that is seeking the authority to certify its graduates must be accredited by the U.S. Department of Education, as described in 34 CFR part 600, § 600.2.

(2) The Department of Education maintains a database of accredited postsecondary institutions and programs electronically (see http://ope.ed.gov/accreditation/). The accreditation must be listed on the institutional evaluation and must comply with the Department of Education requirements.

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h. Substantial Change to a Degree Program.

(1) The institution of higher education must state in its initial or reinstatement application if the degree program has had a substantial change within the previous 5 years from the date of application. If an application for revision, the applicant must explain the substantial change driving the revision.

(2) Based on the information provided on the initial or reinstatement application, the FAA will determine whether or not prior graduates of the degree program(s) listed on the application may also be eligible for a restricted ATP Certificate with a certifying statement should the institution receive authorization.

i. Status of the Part 141 Pilot School Certificate(s) and Association.

(1) The institution of higher education must indicate in its application if there has been a change in the status of the part 141 pilot school certificate(s) in the previous 5 years. If it has changed, the institution must explain when and why the interruption occurred.

(2) The institution of higher education must indicate in its application if the part 141 pilot (flight) school association changed within the previous 5 years from the date of application. If it has changed, an explanation of when and why the interruption occurred is needed.

j. Aviation Coursework Mapping. An applicant for a restricted privileges ATP Certificate under § 61.160(b), (c), or (d), is eligible based on the academic coursework that the applicant has completed. To determine how many credits a graduate completed in aviation and aviation-related coursework, the institution of higher education may reference only those courses designed to enhance and improve the knowledge and skills of a person seeking a career as a professional pilot recognized by the Administrator through this mapping process.

(1) In order to ensure that the aviation coursework incorporates the academic areas listed in paragraph 9 of this AC, the institution of higher education should provide a description of the curriculum covered in the course. The following information is required as part of the aviation coursework mapping (see the example in Appendix 1, Sample Application):

(a) Course number.

(b) Course title.

(c) Course catalog description (to be attached to the application as a separate document).

I. A course catalog description should be validated by the institution of higher education to ensure that the academic areas covered are designed to improve and enhance the knowledge and skills of a person seeking a career as a professional pilot, as stated in § 61.160. An academic area should be the primary focus of a course for the majority of the semester. The FAA does not expect that the courses will be the exact title of the academic areas listed.

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2. The FAA will rely upon the course description provided by the institution of higher education to determine the relationship of the course subject matter to the academic areas. An insufficient description of the course may result in the FAA asking for additional information and may cause a delay in processing the application.

(d) Credit hours for each corresponding course. The FAA assumes semester credit hours unless otherwise stated.

(e) Academic area identification. Referencing paragraph 9 of this AC, an institution of higher education should document ("map") how the specific courses listed are designed to improve and enhance the knowledge and skills of a person seeking a career as a professional pilot. The institution of higher education may reference the specific subject area or the associated number listed below on the application:

- 1. Pilot ground and flight training;
- 2. Aerodynamics and aircraft performance;
- 3. Aircraft systems;
- 4. Aviation human factors;
- 5. Air traffic control and airspace;
- 6. Aviation law and regulations;
- 7. Aviation weather; and
- 8. Aviation safety.

(2) The coursework mapping should clearly indicate which commercial pilot and instrument rating courses (Academic Area "1"), satisfy the requirements of § 61.160(b)(3) or (c)(3).

(3) The academic areas may be within the aviation department, such as Aviation Law or Advanced Aircraft Systems. Courses outside the aviation department may also satisfy the academic area requirements. For example, a physics course may satisfy the academic area requirement for aircraft performance and aerodynamics provided the course description clearly indicates that this is the primary focus of the course. The institution should demonstrate that it offers courses that satisfy all of the academic areas. Because a student must complete 30/60 semester credit hours to be eligible for a restricted privileges ATP Certificate, a student should complete coursework in each subject area by the time the student graduates.

NOTE: In determining whether a course is designed to improve and enhance the knowledge and skills of a person seeking a career as a professional pilot, the institution should consider the objective and purpose of the course. For instance, an introductory course on ATC could be designed to provide a foundation for both pilots and for students intending to pursue a

career as an air traffic controller. On the other hand, an upper level or advanced ATC course is primarily intended to prepare a person to work as an air traffic controller with little additional benefit to a person seeking a career as a pilot. Although knowledge of tower operations is instructive, an upper level ATC course is not generally designed with the goal of improving and enhancing the knowledge and skills of a person seeking a career as a professional pilot.

k. Signature of the POC. The signature of the POC to the FAA for the institution of higher education and the date signed.

14. FAA AUTHORIZATION TO CERTIFY GRADUATES.

a. Application Processing. The FAA will respond to the applicant within 120 days of the FAA receiving the completed application for processing.

b. LOA. Once an institution of higher education is issued its LOA, the FAA will list the institution of higher education on the following FAA Web site: www.faa.gov/go/InstitutionalAuthority.

- c. Web Site. The Web site will contain the following information:
 - (1) The name of the institution of higher education;
 - (2) Location of the institution of higher education;
 - (3) The degree program(s) with aviation major listed on the LOA;
 - (4) The accrediting agency; and
 - (5) Date the LOA was issued.

15. ON-SITE EVALUATION. The FAA may choose to validate the information that an institution of higher education has submitted to the FAA by conducting an on-site evaluation. An on-site evaluation may be held at any facility used by the institution of higher education and may encompass various aspects of the degree program(s) and the course syllabi.

16. LOA. Once an institution of higher education completes the application, provides the FAA with the documentation that is required, and the FAA has determined all of the requirements have been met, an LOA will be issued by the General Aviation and Commercial Division (AFS-800). This indicates the institution of higher education has the authority to certify its graduates of the degree programs listed in the LOA for a restricted privileges ATP Certificate. The LOA will include the following information:

- Name of institution of higher education;
- Degree program(s) with the specific aviation major(s);
- Name of the accrediting agency;
- Name of the part 141 pilot school(s);

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- Authorizing statement; and
- Signature of FAA approving official.

17. CERTIFYING STATEMENT. AFS-800 will issue the LOA by digitally signing it and sending it electronically to the institution of higher education. The LOA grants the institution of higher education authority to add a certifying statement to a graduate's transcript or other document deemed acceptable by the Administrator.

a. Indicate Eligibility. The certifying statement must denote whether the student is eligible to apply for a restricted privileges ATP Certificate based on the applicable criteria in § 61.160(b), (c), or (d). A graduate will then be required to present the certifying document, along with all other documentation required in § 61.39, when applying for the practical test for a restricted privileges ATP Certificate.

b. Sample Statement. The LOA will indicate the certifying statement that the institution of higher education has been authorized to issue. The following statement may be used: The [insert institution's name] certifies that the recipient of this degree has successfully completed all of the aviation coursework requirements of § 61.160[(b), (c) or (d)] and therefore meets the academic eligibility requirements of § 61.160[(b), (c) or (d)].

c. Available List of Institutions of Higher Education. Once AFS-800 has issued the LOA to the institution of higher education, AFS-800 will update its Web site which contains the list of institutions of higher education that have received authorization to certify their students for restricted privilege ATP Certificates provided those students meet the applicable academic requirements of § 61.160.

d. Presenting the Required Documentation. All applicants for a restricted privileges ATP Certificate will need to present an official transcript with a certifying statement or an official transcript with other authorized document containing a certifying statement to the FAA inspector or designee to validate that the applicant meets the applicable aeronautical experience requirements of § 61.160 for a restricted privileges ATP Certificate. If the certifying statement is not present on the graduates' official transcript, a letter from the institution of higher education with the above statement and a copy of their official transcript will be accepted at the time of application for the restricted privileges ATP Certificate.

18. CONTINUED COMPLIANCE.

a. Revalidation. In order to ensure that the institution of higher education continues to comply with the LOA issued by the FAA, a revalidation will occur at the time of the institution's part 141 pilot school renewal by an FAA assigned inspector to the school.

(1) In accordance with § 141.27, a pilot school may have its certificate and ratings renewed for 24 calendar-months if the Administrator determines the school's personnel, aircraft, facility and airport, approved training courses, training records, and recent training ability and quality meet the requirements in part 141.

(2) The FAA will ensure that an institution of higher education's LOA is being complied with at the time of the associated part 141 pilot school certificate renewal.

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b. On-Site Inspections. The FAA may conduct periodic on-site inspections to ensure the institution of higher education continues to comply with the LOA.

c. Revising an Existing Degree Program with an Aviation Major. If the institution of higher education revises any portion of a degree program, including coursework (or the data contained within the LOA that was issued by the FAA changes), the institution should notify AFS-800 prior to implementing the substantial change so a revised LOA can be issued to the institution of higher education.

(1) An application marked "revision" should be submitted by the institution of higher education so the FAA can issue an updated LOA. See paragraphs 3 and 13 of this AC. If the FAA determines that the degree program meets the applicable requirements with the proposed changes, a new LOA will be issued to the institution of higher education.

(2) If the FAA disapproves the changes requested by the institution of higher education, it will notify the institution via a formal letter (an electronic copy also will be sent to the email address listed on the application) and inform the institution of the reasons for disapproval. Guidance to assist the institution of higher education can be provided by AFS-800.

19. REMOVAL OF AN AVIATION MAJOR AND SUSPENSION OF AN LOA. An

aviation major may be removed by an institution of higher education. To remove the major, the institution of higher education should submit an application marked "revision." An LOA may be suspended by the FAA. The institution of higher education may reapply for the aviation major to be reinstated with an application marked "reinstatement."

a. Institutional Initiated Degree Program or Aviation Major Removal.

(1) An institution of higher education may remove a degree program or aviation major for a variety of reasons. An application marked "revision" should be submitted by the institution of higher education and an updated LOA should be issued by the FAA. See paragraphs 3 and 13 of this AC. In addition, all stakeholders should be notified of the removal by the institution.

(2) Documentation of the removal, an explanation of the removal, and/or proof of notification to former, current, and prospective students may be requested by AFS-800.

b. FAA-Initiated LOA Suspension.

(1) An institution of higher education may have its LOA suspended by the FAA if the institution's program no longer meets either regulatory requirements or the conditions of the LOA. The reasons for noncompliance may include but are not limited to:

(a) Requirements of the LOA are no longer met;

(b) Loss of a part 141 certificate to the institution of higher education or the associated flight school (the institution of higher education may retain limited authority to continue to issue a certifying statement to graduates of the degree program that completed the required ground and flight training through the institution's part 141 pilot school certificate prior to the institution losing the certificate; or
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(c) The institution of higher education's lack of documentation on the eligibility of graduates for a restricted privileges ATP Certificate (e.g., a certifying statement on the graduates official transcript or letter from the institution of higher education stating the applicant's eligibility).

(2) The institution of higher education may appeal the suspension of the LOA to AFS-800 within 30 days. The FAA will respond within 60 days by reissuing the LOA or by stating the reasons why the program still fails to meet the requirements. Guidance to assist the institution of higher education may be provided by AFS-800.

(3) Students that are enrolled at the institution of higher education at the time of the LOA suspension may continue to be eligible for a restricted privileges ATP Certificate. Conditions of eligibility for a graduate will need to be determined by AFS-800. The institution of higher education would retain the requirement to validate a graduate meets the applicable requirements of § 61.160 under the conditions established.

(4) The FAA will conduct assessments of the LOA suspension on a case-by-case basis. In the event that the FAA believes that the institution of higher education acted in a manner that jeopardized the student's ability to meet the eligibility requirements of a restricted privileges ATP Certificate, the LOA may be suspended. The institution of higher education may appeal the suspension of the LOA as described in subparagraph 19b(2) above.

20. FAA CONTACT INFORMATION.

a. Whom to Contact. All institutions of higher education who seek the authority to certify graduates for an ATP Certificate under § 61.160 should contact the General Aviation and Commercial Division (AFS-800) with all preliminary inquiries.

b. To Apply. The institution of higher education should submit the following documentation to AFS-800:

(1) Completed application (FAA Form 8700-1);

(2) Additional pages, as necessary, to complete the documentation required by the "Aviation Coursework Mapping" section of the application;

(3) If the required flight training is completed in accordance with \S 61.160(b)(3) and (c)(3), as applicable, an institution of higher education must submit a formal training agreement as prescribed in \S 141.26(b) with a part 141 pilot school that provides the flight training for the commercial pilot certificate and instrument rating on behalf of the institution of higher education.

c. Contact Information. Institutions of higher education may submit inquiries or documentation to AFS-800 via any of the following methods:

(1) Email address: InstitutionalAuthorityApp@faa.gov.

(2) AFS-800 fax: 202-385-9597.

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(3) U.S. Postal Service or other conventional physical document transfer service to:

Federal Aviation Administration General Aviation and Commercial Division, AFS-800 800 Independence Avenue, SW Washington, DC 20591

151 John d. Drus ⁻ for

John M. Allen Director, Flight Standards Service

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AC 61-139 Appendix 1

Form approved OMB No: 2120-0755 7/31/2015

APPENDIX 1. SAMPLE APPLICATION

TYPE OR PRINT ALL ENTRIES IN INK 2 U.S. Department of Transportation Federal Aviation Administration

INSTITUTION OF HIGHER EDUCATION'S APPLICATION FOR AUTHORITY TO CERTIFY ITS GRADUATES FOR AN AIRLINE TRANSPORT PILOT CERTIFICATE WITH REDUCED AERONAUTICAL EXPERIENCE

APPLICANT – Read submittal and signature instructions on the last page. This application is for institutions of higher education seeking the authority under § 61.169 to certify its graduates for an airline transport pilot certificate under the academic and aeronautical experience requirements in § 61.160. This application seeks information from the institution of higher education to ensure its academic curriculum incorporates at least the minimum credit hours for aviation and aviation-related coursework, as prescribed in § 61.160(b), (c), or (d). Additionally, the institution of higher education should identify which courses meet the ground and flight training requirements of § 61.160(b), (c), or (d) in the Aviation Coursework Mapping Section. For additional instructions and information, refer to AC 61-139.

1. Please indicate the nature of this submission.		2. DATE (MM/DD/YYYY)		3. INSTITUTION NAME	4. PHONE NUMBER
Initial Revision Reinstatement		08/01/2013	3	School of Aviation	(xxx) xxx-xxxx
5. ADDRESS OF PRINC	IPAL BUSINESS OFFICE				
1200 School Street, C	ity, State Zip Code				
6. POINT OF CONTACT NAME 7. POINT OF CONTACT E-MAIL					
Professor Jane Doe			Jane.	Doe@School.edu	
8. DEGREE PROGRAM	: List all degree programs v	vith aviation major	s.		
Bachelor Degree	Bachelor of Science	in Professional	Pilot,	Bachelor of Business Administratio	n in Aviation Management
Associates Degree	1				
9. PART141 (FLIGHT) F	ILOT SCHOOL NAME	PART CERTIFI NUMB	141 CATE IER	LOCATION OF MA	IN OPERATIONS BASE
ABC Flight School		AB1S1724	4	City, State	
10. PART141 (GROUND) PILOT SCHOOL NAME (If different from flight pilot school)		IF PART CERTIFI NUMB	141 CATE ER	LOCATION OF MA	IN OPERATIONS BASE
School of Aviation		SA1S777	City State		
Please answer the follo	wing question by selecti	ng either "YES" o	or "NC		
Is the academic institution that is seeking the authority to certify its graduates accredited by the Department of Education in 34 CFR 600.2 (Refer to http://ope.ed.gov/accreditation/ ? If yes, pleating accrediting accrediting accrediting accrediting accrediting accrediting accredition and the state of the st			ates accredited by the <u>ccreditation/)</u> ? If yes, please		
Please explain your an	nswers to the following q	uestions. If addit	ional	space is necessary, attach in a separa	te document.
12. For Initial and F identified above. For	Reinstatement applica or a Revision applicati	tions-explain a on-explain the	ny su reas	bstantial change in the previous on for the revision (substantial ch	5 years to a degree program nange).
In 2012 (1 year ago), t subject matter were m	the School restructured ade to more clearly focu	the curriculum in as the two course	n two es on	aviation courses [List course numbe human factors and aviation safety.	ers]. The modifications to the
13. For All application association with a program (if applicable)	ons-explain any chan ilot school (if applicat	ge in (a) the sta ble). For Initial a	atus d and F	of the 14 CFR part 141 pilot scho einstatement applications-includ	ol certificate(s) and/or (b) your le any change over the past 5
In 2009 (3 years ago), Flight School, also a p 141 certificate. There	the School decided to r part 141 pilot school, to were no content change	to longer provide provide the requ s to the TCOs.	e the f ired t	light training under its part 141 cert aining. The University now provide	ificate and contracted with ABC es only ground training under its part
FAA Form 8700-1 (07-13)					

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AC 61-139 Appendix 1

Form approved OMB No. 2120-0755 TYPE OR PRINT ALL ENTRIES IN INK 14. Aviation Coursework Mapping: List each aviation and aviation-related course offered that will improve and enhance the knowledge and skills of a person seeking a career as a professional pilot. Include the course number, the title of the course, the number of semester credits, and identify which academic area, identified in AC 61-139, the course addresses. Please attach in a separate document a course catalog description of each course. If additional space is necessary to list course information, please attach it in a separate document. COURSE SEMESTER COURSE TITLE ACADEMIC AREAS NUMBER CREDITS AVI 101 Introduction to Flight 3.00 1 - Ground Training AVI 132 Private Pilot Flight 3.00 1 - Flight Training AVI 201 3.00 Theory of Instrument Flight 1 - Ground Training AVI 232 Instrument Flight 2.00 1 - Flight Training AVI 301 Commercial Pilot Ground School 3.00 1 - Ground Training AVI 332 Commercial Pilot Flight 2.00 1 - Flight Training AVI 410 3.00 2 - Aerodynamics Aerodynamics AVI 220 3.00 Basic Aircraft Systems 3 - Aircraft Systems AVI 320 Turbine Aircraft Systems 3.00 3 - Aircraft Systems AVI 340 Human Factors 3.00 4 - Aviation Human Factors Introduction to Air Traffic Control 3.00 AVI 160 5 - Air Traffic Control/Airspace AVI 240 Federal Aviation Regulations 3.00 6 - Aviation Law and Regulations 3.00 AVI 350 Aviation Law 6 - Aviation Law and Regulations Basic Meteorology with Lab AVI 180 4.00 7 - Aviation Weather AVI 280 Aviation Weather 3.00 7 - Aviation Weather AVI 380 Advanced Meteorology 3.00 7 - Aviation Weather AVI 360 3.00 8 - Aviation Safety Aviation Safety AVI 390 Crew Resource Management 3.00 8 - Aviation Safety AVI 401 Certified Flight Instructor Ground School 4.00 1 - Ground Training AVI 432 Certified Flight Instructor Flight 3.00 1 - Flight Training 15. XYES DNO A course description of each course listed above is included with this application. 16. I (We) certify that I am (we are) familiar with applicable subject areas in part 61 of the CFR, and, to the best of my (our) knowledge, believe that my (our) institution meets the requirements for certification as prescribed therein. Jame Dou August 1, 2013 Signature of the Point of Contact Date 17. FOR FAA USE ONLY SIGNATURE OF APPROVING OFFICIAL TITLE DATE PAPERWORK REDUCTION ACT STATEMENT: A federal agency may not conduct or sponsor, and a person is not required to respond to, nor shall a PAPEWRVDR REDUCTION ACT STATEMENT: A federal agency may not conduct or sponsor, and a person is not required to respond to, nor shall a person be subject to a penalty for failure to comply with a collection of information subject to the requirements of the Papework Reduction Act unless that collection of information displays a currently valid OMB Control Number. The OMB Control Number for this information collection is 2120-0755. Public reporting for this collection of information is estimated to be approximately 8 hours per response, including the time for reviewing instructions, searching existing data sources, gathering and maintaining the data needed, completing and reviewing the collection of information. All responses to this collection of information are required to obtain or retain a benefit per 14 CFR part 61. Send comments regarding this burden estimate or any other aspect of this collection of information, including suggestions for reducing this burden to the FAA at: 800 Independence Ave. SW, Washington DC 20591, Attn: Information Collection Clearance Officer, AES-200.

FAA Form 8700-1 (07-13)

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Appendix VI: Course Syllabi

Course: AVIA 101 Private Pilot

AVIA 101 Private Pilot

School/Department:

College of Business, Humanities & Social Sciences, Department of Aviation

Semester: Fall 2015

Course Format and Credit Hours:

3 credit hour eCampus/flight course. Flight students will also complete the associated 3 credit hour AVIA 191 Professional Field Experience course.

Prerequisites:

Enrollment in this course requires the approval of the aviation program director. Students requiring the flight training associated with this course must co-enroll in AVIA 191 Professional Field Experience. Please contact the Aviation Department for more information.

Instructor:

Frank David Robbins, ATP, CFIIMEI, Interim Aviation Program Coordinator, COBE 319, <u>Frank.Robbins@mail.wvu.edu</u>, 304-442-3005, fax 304-442-3810.

Schedule:

This is an 8 week course with both online and flight components. The online component contains 8 weekly modules. Each module begins at 12:01 a.m. on Sunday and ends at 12:00 p.m. the following Saturday. The flight component is conducted at an approved flight training center and requires the student to also enroll in AVIA 191 Professional Field Experience.

<u>Location</u>: Web/online

<u>Office</u>: COBE 319

<u>Office Hours</u>: M-F, 8:00 – 4:30

Course Description:

Provides the knowledge and skills needed to obtain a FAA private pilot certificate. Topics include aerodynamics, systems, regulations, airspace, performance, weather, flight

publications, navigation, basic flight physiology, and flight safety. Flight training necessary to develop the basic skills necessary to operate a single engine aircraft as a private pilot.

Course Objectives:

Students will develop the theoretical knowledge needed to safely exercise the privileges and responsibilities as a Federal Aviation Administration (FAA) private pilot and to pass the FAA private pilot knowledge and practical examination. Topics of study include aerodynamics, aircraft systems, resource management, FAA regulations, U.S. airspace system, weight and balance, aircraft performance, aviation weather, flight publications, cross-country navigation, basic flight physiology, flight maneuvers, and flight safety.

Learning Outcomes:

Upon the completion of this course, student will learn the following material(s) and have the following competencies:

- Show knowledge in aerodynamics, federal aviation regulations, and aeronautical procedures. [Bloom's: Knowledge]
- Demonstrate the required aeronautical knowledge necessary for a solid foundation for flight training. [Bloom's: Application]
- Explain the national airspace system and federal aviation regulations, flight information and communication at a private pilot level. [Bloom's: Comprehension]
- Summarize basic flight principles, aerodynamics, the flight environment, navigation, meteorology for pilots, basic human factors, and the fundamentals of flight. [Bloom's: Comprehension]

Required Text:

Jeppesen Guided Flight Discovery Private Pilot Textbook. Jeppesen, Englewood, CO. ISBN 9780884874292

Jeppesen Private Pilot FAA Airman Knowledge Test Guide. Jeppesen, Englewood, CO. ISBN 9780884875390

Federal Aviation Regulations/Aeronautical Information (FAR/AIM) Manual (2013). Federal Aviation Administration. Jeppesen, Englewood, CO. ISBN: 9780884875840.

Federal Aviation Regulations available online: http://ecfr.gpoaccess.gov/cgi/t/text/text-idx?c=ecfr&tpl=/ecfrbrowse/Title14/14tab_02.tpl

Aeronautical Information Manual available online: http://www.faa.gov/air_traffic/publications/atpubs/aim/ Private Pilot Practical Test Standards for Airplane. Federal Aviation Administration FAA-S-8081-14A with Change. Available online: http://www.faa.gov/training_testing/testing/test_standards/#pilot/

Airplane Flying Handbook. Federal Aviation Administration, FAA-H-8083-3A. Available online: http://www.faa.gov/regulations_policies/handbooks_manuals/aircraft/airplane_handbook/

Pilot's Handbook of Aeronautical Knowledge. Federal Aviation Administration, FAA-H-8083-25A. Available online: http://www.faa.gov/regulations_policies/handbooks_manuals/

Grading:

The student will be evaluated in this course on the following criteria:

Course Element	Points	Percentage
Proper preparation for lessons	100	10%
Discussion Posts	100	10%
Section Tests (4)	400	40%
Final Examination	400	40%
Total	1000	100%

Note: Points may be lost for late or missing submissions. See Late Assignments for details.

Grade Scale:

100 – 90%	Α
89 – 80%	В
79 – 70%	С
69 – 60%	D
59 – 0%	F

Grading Policy:

Discussion posts will be graded on a student's meaningful contribution to the discussion. A post will be considered acceptable if it provides additional information, clarifies a question, provides different prospective, raises a question, or in some other way contributes to the overall discussion. Simply agreeing with another student's post is not considered acceptable.

The four section tests consist of multiple choice questions similar to the questions on the FAA knowledge examination. Each test includes 50 questions and each question has a value of 2 points.

The comprehensive final exam consists of multiple choice questions similar to the questions on the FAA knowledge examination. The tests contains 100 questions and each question has a value of 4 points.

Final Grade of Incomplete Policy:

Note: This is an on-line course. As such an incomplete grade is highly discouraged. The WVU eCampus system will close the course soon after the course end date, making it impossible for the student to have access to further course material such as tests or discussion questions. The submission of any remaining work must be coordinated between the student and the instructor and must be submitted directly to the instructor.

The grade of I (Incomplete) will be given only when the instructor believes that the course work is unavoidably incomplete.

1. Students must complete unfinished work, by the end of the next semester enrolled (Fall, Spring, Summer) for any course in which they have received an incomplete.

2. The student is responsible for contacting the instructor of record to develop a written plan to complete the work.

Participation (Attendance) Policies:

<u>eCampus</u>

Each week students will log on to the course on the eCampus website and complete the weekly assignment by Wednesday of that week. Each student will post his/her response to the discussion question by Thursday and respond to at least one other post by the end of the week. The additional elements of the discussion questions and responses are designed to help students work through the course material as well as interact with the instructor and other students. Students are encouraged to post not only answers to specific questions, but to delve into the personal aspects of aviation, such as why you wish to fly, your career goals, and your greatest fears about flying.

This course is foundational to all other aviation theory courses. It covers a very broad range of topics and everything in the course is important information. Students should read the Jeppesen material first. The FAA publications are the ultimate authority for this course, but somewhat more difficult to understand. By completing each eCampus module first and then reading the related FAA documents, the material will be easier to understand and better retained.

Discussion questions are critical for your grade.

Late Assignments:

This is an interactive on-line course. As such it is critical that students participate weekly with not just reading and test questions but with participation in the discussion questions.

One outcome of the course is to help students develop the work ethic and discipline required in aviation. Timeliness is a characteristic required of all professional pilots. Therefore, each student is expected to submit all work on time.

Nevertheless, extenuating circumstances do arise. Limited exceptions will be made for late participation when individual circumstances make it difficult for the student to meet the weekly demands of the course. These exceptions will be **limited**. Please make every effort to keep up, especially with the discussion questions. Late participation in discussion questions for any reason may result in a grade penalty, specifically the loss the points associated with that week's questions.

Late submission of tests will result in a reduction of 10 points per test.

Inclusivity Statement:

West Virginia University community is committed to creating and fostering a positive learning and working environment based on open communication, mutual respect and inclusion.

If you are a person with a disability and anticipate needing any type of accommodation in order to participate in this class, please advise me and make appropriate arrangement with Disability Services (304-293-6700).

Academic Integrity:

The integrity of the classes offered by any academic institution solidifies the foundation of its mission and cannot be sacrificed to expediency, ignorance, or blatant fraud. Therefore, I will enforce rigorous standards of academic integrity in all aspects and assignments of this course. For the detailed policy of West Virginia University regarding the definitions of acts considered to fall under academic dishonesty and possible ensuing sanctions, please see the Student Conduct Code at

<u>http://studentlife.wvu.edu/office of student conduct/student conduct code</u>. Should you have any questions about possibly improper research citations or references, or any other activity that may be interpreted as an attempt at academic dishonesty, please see me before the assignment is due to discuss the matter.

Flight

The flight component requires enrollment in AVIA 193 Professional Field Experience. Students are expected to punctually arrive at each training center appointment, complete reading assignments and lessons on time, and actively participate in all briefings. Students are also expected to prepare for each lesson in advance by following the course syllabus and materials, following instructor assignments, reading course materials and utilizing available student resources.

Students that consistently fail to arrive promptly for flight lessons will fail the course and are not eligible for a refund of flight fees.

Unsafe Aircraft Operations: If a student engages in any type of intentional unsafe operation of an aircraft, that student will immediately fail the course, be removed from the program and no refunds will be issued.

Inclement Weather: Flight training may only be conducted in suitable weather, as determined by the flight school operator and the flight instructor. It is not the student's decision to decide what weather is acceptable for flight training. The student is expected to arrive at the training center for all flight lessons, unless specifically instructed by the instructor of training center operations no to do so.

eCampus Assignment Summary:

Week #1: Discovering Aviation & Flight

Assignment	Due Date	Specifics	
Textbook Readings	Wednesday	Chapter 1 – Discovering Aviation Chapter 2 – Airplane Systems	
Discussion Questions	Wednesday	Respond to Week #1 discussion question(s).	
Discussion Questions	Thursday	Reply to at least one classmate's response to the Week's discussion questions.	
Video Assignment	Thursday	Chapter 2 – Airplane Systems Sections A, B, & C	
Federal Aviation Regulations	Saturday	Review the following FARs: 1.1 – definition of "category" and "class", 1.2 "VSO, VA, VFE", 61.3, 61.15, 61.23, 61.31, 61.57	

Week #2: Aerodynamic Principles

Assignment	Due Date	Specifics
Textbook Readings	Wednesday	Chapter 3 – Aerodynamic Principles
Discussion Questions	Wednesday	Respond to Week #2 discussion question(s).
Discussion Questions	Thursday	Reply to at least one classmate's response to the Week's discussion questions.
Video Assignment	Thursday	Chapter 3 – Aerodynamic Principles Sections A, B, & C
Federal Aviation Regulations	Saturday	Review the following FARs: 61.113, 91.9, 91.15, 91.17, 91.303, 91.313, 91.319
Section 1 Test	Saturday	Take Section 1 Test covering chapters 1, 2 & 3.

Assignment	Due Date	Specifics
Textbook Readings	Wednesday	Chapter 4 – The Flight Environment Chapter 5 – Communication and Flight Information
Discussion Questions	Wednesday	Respond to Week #3 discussion question(s).
Discussion Questions	Thursday	Reply to at least one classmate's response to the Week's discussion questions.
Video Assignment	Thursday	Chapter 4 – The Flight environment Sections A, B, C & D Chapter 5 – Communication and Flight Info. Sections A, B, & C
Federal Aviation Regulations	Saturday	Review the following FARs: 91.3, 91.113, 91.115,91.117, 91.119, 91.123, 91.125, 91.126, 91.127, 91.129, 91.130, 91.131, 91.155, 91.157, 91.205, 91.215
Section 2 Test	Saturday	Take Section 2 Test covering chapters 4 & 5.

Week #3: The Flight Environment, Communication, & Flight Information

Week #4: Meteorology for Pilots

Assignment	Due Date	Specifics
Textbook Readings	Wednesday	Chapter 6 – Meteorology for Pilots
Discussion Questions	Wednesday	Respond to Week #4 discussion question(s).
Discussion Questions	Thursday	Reply to at least one classmate's response to the Week's discussion questions.
Video Assignment	Saturday	Chapter 6 – Meteorology for Pilots Sections A, B, & C
Federal Aviation Regulations	Saturday	Review previous FAR assignments.

Week #5: Interpreting Weather Data

Assignment	Due Date	Specifics	
Textbook Readings	Wednesday	Chapter 7 – Interpreting Weather Data	
Discussion Questions	Wednesday	Respond to Week #5 discussion question(s).	
Discussion Questions	Thursday	Reply to at least one classmate's response to the Week's discussion questions.	
Video Assignment	Thursday	Chapter 7 – Interpreting Weather Data Sections A, B, C & D	
Federal Aviation Regulations	Saturday	Review previous FAR assignments.	
Section 3 Test	Saturday	Take Section 3 Test covering chapters 6 & 7.	

Week #6: Performance & Navigation

Assignment	Due Date	Specifics	
Textbook Readings	Wednesday	Chapter 8 – Airplane Performance Chapter 9 - Navigation	
Discussion Questions	Wednesday	Respond to Week #6 discussion question(s).	
Discussion Questions	Thursday	Reply to at least one classmate's response to the Week's discussion questions.	
Video Assignment	Thursday	Chapter 8 – Airplane Performance Sections A, B, & C Chapter 9 – Navigation Sections A, B, C & D	
Federal Aviation Regulations	Saturday	Review the following FARs: 91.151, review previous FAR assignments	
Section 4 Test	Saturday	Take Section 4 Test Chapters 8 & 9.	

Week #7: Cross-Country Flight Planning

Assignment Due Date		Specifics	
Textbook Readings	Wednesday	Chapter 11 – Flying Cross Country	
Discussion Questions	Wednesday	Respond to Week #7 discussion question(s).	
Discussion Questions	Thursday	Reply to at least one classmate's response to the Week's discussion questions.	
Federal Aviation Regulations	Saturday	Review the following FARs: 91.7, 91.103, 91.105, 91.107, 91.111, 91.403, 91.407, 91.409, 91.417, 14 CFR Part 43 Appendix A – What actions are considered preventative maintenance?	

Week #8: Unit Title

Assignment Due Date		Specifics
Textbook Readings	Wednesday	Chapter 10 – Applying Human Factors Principles
Discussion Questions	Wednesday	Respond to Week #8 discussion question(s).
Discussion Questions	Thursday	Reply to at least one classmate's response to the Week's discussion questions.
Video Assignment	Thursday	Chapter 10 – Applying Human Factors Principles Sections A & B
Federal Aviation Regulations	Saturday	Review the following FARs: NTSB 830.5, 830.10, 830.15
Test	Saturday	Comprehensive Final Exam covering chapters 1 through 11.

Flight Assignment Summary:

The flight assignment summary will be provided by the flight training provider.

<u>Course:</u> AVIA 191 Professional Field Experience

School/Department:

College of Business, Humanities & Social Sciences, Department of Aviation

Semester: Fall 2015

Fail 2015

Course Format and Credit Hours:

1-3 credit hour flight course conducted at an approved flight training partner location.

Course Overview:

This course provides the flight experience required to earn a Federal Aviation Administration private pilot certificate. It is conducted concurrently with or immediately after AVIA 101 Private Pilot. It is conducted at an approved flight training provider location and will require the student relocate to and have accommodations at the flight training location. The student is required to meet all FAA, flight training organization, and WVUIT requirements, including medical requirements. The tuition for this course is substantial, and is not refundable. Additionally, flight training is an inherently dangerous activity potentially resulting in serious injury or death. By enrolling in the course the student acknowledges this, agrees to act in a safe and responsible manner, and waives any and all claims against WVUIT, WVU and the flight training provider.

Prerequisites:

Enrollment in this course requires the approval of the aviation program director. Students must also be co-enrolled or have completed AVIA 101 Private Pilot. A Federal Aviation Administration (FAA) second class medical certificate and student pilot certificate is required before starting this course. Please contact the Aviation Program Coordinator for more information.

Instructor:

Frank David Robbins, ATP, CFIIMEI, Interim Aviation Program Coordinator, COBE 319, <u>Frank.Robbins@mail.wvu.edu</u>, 304-442-3005, fax 304-442-3810.

Schedule:

8 week course, with a minimum of 3 scheduled flight lessons per week. Flight lessons will be scheduled through the approved flight training provider. Students should be prepared to fly at any time, on any day of the week, unless prior arrangements have been made.

Location:

Any approved flight training provider location.

Office:

COBE 319

<u>Office Hours</u>: M-F, 8:00 – 4:30

Course Description:

Flight training conducted in conjunction with AVIA 101 Private Pilot necessary obtain a FAA private pilot certificate.

Course Objectives:

Students will develop the knowledge, skills, and experience necessary to obtain a FAA private pilot certificate.

Expected Learning Outcomes:

Upon the completion of this course, student will learn the following material(s) and have the following competencies:

- Use the required aeronautical knowledge and skills necessary to complete each flight lesson within standards. [Bloom's: Application]
- Tell how to safely operate an aircraft as a private pilot. [Bloom's: Application]
- Exhibit the knowledge, skills, and maneuvers necessary to successfully pass the FAA private pilot practical test. [Bloom's: Application]

Required Text:

Refer to the syllabus for the applicable AVIA course for specific textbook information.

Grading:

The student will be evaluated in this course on the following criteria:

Course Element	Points	Percentage
Prompt attendance for each flight session	300	30%
Proper preparation for lessons	300	30%
Completion of course within allocated flight time	300	30%
Successful completion of FAA practical test	100	10%
Total	1000	100%

Note: Points may be lost for late completion of the course. See Late Assignments for details.

Grade Scale:

100 – 90	Α
89 – 80	В
79 – 70	С
69 – 60	D

59–0 F

Grading Policy:

Course Participation: Students are expected to punctually arrive at each training center appointment, complete reading assignments and lessons on time, and actively participate in all briefings.

Preparation for Lessons: Students are expected to prepare for each lesson in advance by following the course syllabus and materials, following instructor assignments, reading course materials and utilizing available student resources.

Lesson Completion Standards: Students will be evaluated on their ability to meet the completion standards stated at the end of each lesson. Lessons may require more than one flight to meet the standards.

On-Schedule Course Completion: Students are expected to complete the course by the scheduled end of the course. This requires the student be aggressive in attendance and scheduling, as weather and mechanical delay conspire to delay training.

Course Completion within Flight Time Allowance: Students are expected to complete the course within the allocated flight time. If a student exceed the allocated flight time by more than 10%, there will be a 100 point reduction in the student's grade for each 10% overrun.

Successful Completion of FAA Practical Test on First Attempt: Students will be penalized 10% for failure to successfully pass the FAA practical test on the first attempt.

Final Grade of Incomplete Policy:

The grade of I (Incomplete) will be given only when the instructor believes that the course work is unavoidably incomplete.

1. Students must complete unfinished work, by the end of the next semester enrolled (Fall, Spring, Summer) for any course in which they have received an incomplete.

2. The student is responsible for contacting the instructor of record to develop a written plan to complete the work.

Participation (Attendance) Policies:

Students are expected to punctually arrive at each training center appointment, complete reading assignments and lessons on time, and actively participate in all briefings. Students are also expected to prepare for each lesson in advance by following the course syllabus and materials, following instructor assignments, reading course materials and utilizing available student resources.

Students that consistently fail to arrive promptly for flight lessons will fail the course and are not eligible for a refund of flight fees.

Unsafe Aircraft Operations: If a student engages in any type of intentional unsafe operation of an aircraft, that student will immediately fail the course, be removed from the program and no refunds will be issued.

Inclement Weather: Flight training may only be conducted in suitable weather, as determined by the flight school operator and the flight instructor. It is not the student's decision to decide what weather is acceptable for flight training. The student is expected to arrive at the training center for all flight lessons, unless specifically instructed by the instructor of training center operations no to do so.

Late Assignments:

One outcome of the course is to help students develop the work ethic and discipline required in aviation. Timeliness is a characteristic required of all professional pilots. Therefore, each student is expected to complete the course on time.

Nevertheless, extenuating circumstances do arise. Limited exceptions will be made for late participation when individual circumstances make it difficult for the student to meet the weekly demands of the course. These exceptions will be **limited**. Please make every effort to keep up. Late participation for any reason may result in a grade penalty.

Inclusivity Statement:

West Virginia University community is committed to creating and fostering a positive learning and working environment based on open communication, mutual respect and inclusion.

If you are a person with a disability and anticipate needing any type of accommodation in order to participate in this class, please advise me and make appropriate arrangement with Disability Services (304-293-6700).

Academic Integrity:

The integrity of the classes offered by any academic institution solidifies the foundation of its mission and cannot be sacrificed to expediency, ignorance, or blatant fraud. Therefore, I will enforce rigorous standards of academic integrity in all aspects and assignments of this course. For the detailed policy of West Virginia University regarding the definitions of acts considered to fall under academic dishonesty and possible ensuing sanctions, please see the Student Conduct Code at

<u>http://studentlife.wvu.edu/office of student conduct/student conduct code</u>. Should you have any questions about possibly improper research citations or references, or any other activity that may be interpreted as an attempt at academic dishonesty, please see me before the assignment is due to discuss the matter.

Assignment Summary:

Specific assignments and schedules will be determined by the flight training provider.

<u>Course:</u> AVIA 201 Instrument Rating

School/Department:

College of Business, Humanities & Social Sciences, Department of Aviation

Semester: Fall 2015

Fail 2015

Course Format and Credit Hours:

4 credit hour eCampus/flight course. Flight students will also complete the associated 3 credit hour AVIA 291 Professional Field Experience course.

Prerequisites:

Enrollment in this course requires the approval of the aviation program director. Students requiring the flight training associated with this course must co-enroll in AVIA 291 Professional Field Experience. Please contact the Aviation Department for more information.

Instructor:

Frank David Robbins, ATP, CFIIMEI, Interim Aviation Program Coordinator, COBE 319, <u>Frank.Robbins@mail.wvu.edu</u>, 304-442-3005, fax 304-442-3810.

Schedule:

This is an 8 week course with both online and flight components. The online component contains 8 weekly modules. Each module begins at 12:01 a.m. on Sunday and ends at 12:00 p.m. the following Saturday. The flight component is conducted at an approved flight training center and requires the student to also enroll in AVIA 291 Professional Field Experience.

Location: Web/On-line and at the flight training center.

Office: COBE 319

<u>Office Hours</u>: M-F, 8:00 – 4:30

Course Description:

Provides the knowledge required for an instrument rating. Includes instrument flight regulations, air traffic control system and procedures, instrument navigation and approaches, charts, weather, safety, aeronautical decision making, and crew resource management.

Course Objectives:

Students will develop the theoretical knowledge needed to safely exercise the privileges and responsibilities of a Federal Aviation Administration (FAA) Instrument Rating and to pass the FAA Instrument Rating knowledge examination. Topics of study include aircraft systems, resource management, FAA regulations, U.S. Airspace System, aviation weather, flight publications, cross-country planning and navigation, and flight safety.

Learning Outcomes:

Upon the completion of this course, student will learn the following material(s) and have the following competencies:

- Use the required aeronautical knowledge necessary for a solid foundation in <u>instrument</u> <u>flight training</u>. [Bloom's: Application]
- Interpret national airspace system and federal aviation regulations, instrument charts and procedures, IFR operations, flight information, and Air Traffic Control (ATC) communications. [Bloom's: Analysis]
- Explain the proper operation of flight instruments, aviation navigation systems, the ATC communication network, meteorology for pilots, and aviation physiology as related to instrument flight. [Bloom's: Application]
- Exhibit the knowledge, skills, and maneuvers necessary to successfully pass the FAA Instrument Rating Airplane knowledge examination and practical test on the first attempt. [Bloom's: Application]

Required Text:

Federal Aviation Regulations/Aeronautical Information (FAR/AIM) Manual (2013). Federal Aviation Administration. Jeppesen, Englewood, CO. ISBN: 9780884875840.

Instrument Rating Knowledge Test Guide. Jeppesen, Englewood, CO. ISBN: 9780884875406

Federal Aviation Regulations available online: http://ecfr.gpoaccess.gov/cgi/t/text/text-idx?c=ecfr&tpl=/ecfrbrowse/Title14/14tab_02.tpl

Aeronautical Information Manual available online: <u>http://www.faa.gov/air_traffic/publications/atpubs/aim/</u>

Instrument Rating Practical Test Standards for Airplane. Federal Aviation Administration FAA-S-8081-4E with Changes 1, 2, and 3. Available online: http://www.faa.gov/training_testing/testing/test_standards/#pilot/

Instrument Flying Handbook. 2012, Federal Aviation Administration, FAA-H 8081-15B. Available online: http://www.faa.gov/regulations_policies/handbooks_manuals/

Instrument Procedures Handbook. 2007, Federal Aviation Administration, FAA-H-8261-1A. Available online: http://www.faa.gov/regulations_policies/handbooks_manuals/

Risk Management Handbook, 2009, Federal Aviation Administration, FAA-H-8083-2. Available online: http://www.faa.gov/regulations_policies/handbooks_manuals/

Grading:

The student will be evaluated in this course on the following criteria:

Course Element	Points	Percentage
Prompt participation	300	15%
Discussion Posts	300	15%
Section Tests (7)	700	30%
Final Examination	700	30%
Total	2000	100%

Note: Points may be lost for late or missing submissions. See Late Assignments for details.

Grade Scale:

100 – 90	Α
89 – 80	В
79 – 70	С
69 – 60	D
59 – 0	F

Grading Policy:

Discussion posts will be graded on a student's meaningful contribution to the discussion. A post will be considered acceptable if it provides additional information, clarifies a question, provides different prospective, raises a question, or in some other way contributes to the overall discussion. Simply agreeing with another student's post is not considered acceptable.

The seven section tests consist of multiple choice questions similar to the questions on the FAA knowledge examination. Each test includes 50 questions and each question has a value of 2 points.

The comprehensive final exam consists of multiple choice questions similar to the questions on the FAA knowledge examination. Each test contains 100 questions and each question has a value of 4 points.

Final Grade of Incomplete Policy:

Note: This is an on-line course. As such an incomplete grade is highly discouraged. The WVU eCampus system will close the course soon after the course end date, making it impossible for the student to have access to further course material such as tests or discussion questions. The submission of any remaining work must be coordinated between the student and the instructor and must be submitted directly to the instructor.

The grade of I (Incomplete) will be given only when the instructor believes that the course work is unavoidably incomplete.

1. Students must complete unfinished work, by the end of the next semester enrolled (Fall, Spring, Summer) for any course in which they have received an incomplete.

2. The student is responsible for contacting the instructor of record to develop a written plan to complete the work.

Participation (Attendance) Policies:

Each week students will log on to the course on the eCampus website and complete the weekly assignment by Wednesday of that week. Each student will post his/her response to the discussion question by Thursday and respond to at least one other post by the end of the week. The additional elements of the discussion questions and responses are designed to help students work through the course material as well as interact with the instructor and other students. Students are encouraged to post not only answers to specific questions, but to delve into the personal aspects of aviation, such as why you wish to fly, your career goals, and your greatest fears about flying.

The instrument rating course starts your journey into the world of professional aviation. The knowledge you will learn is this course will be used every day you fly. It is of the utmost importance to learn the material well! You will need to be able to recall and understand this material quickly and with good accuracy. Instrument flying is much more than knowing how to control the aircraft by reference to instruments, is about having a complete mental picture of where you are, where you are going, what stands in your way, and what you need to do to accomplish your goal. Without the proper knowledge, not only will your attempted instrument flight go badly, but you could easily die. Many fine pilots and their passengers have done so because of a simple misunderstanding. Take your work seriously, learn as much as possible and enjoy the journey.

Late Assignments:

This is an interactive on-line course. As such it is critical that students participate weekly with not just reading and test questions but with participation in the discussion questions.

One outcome of the course is to help students develop the work ethic and discipline required in aviation. Timeliness is a characteristic required of all professional pilots. Therefore, each student is expected to submit all work on time.

Nevertheless, extenuating circumstances do arise. Limited exceptions will be made for late participation when individual circumstances make it difficult for the student to meet the weekly demands of the course. These exceptions will be **limited**. Please make every effort to keep up, especially with the discussion questions. Late participation in discussion questions for any reason may result in a grade penalty, specifically the loss the points associated with that week's questions.

Late submission of tests will result in a reduction of 10 points per test.

Inclusivity Statement:

West Virginia University community is committed to creating and fostering a positive learning and working environment based on open communication, mutual respect and inclusion.

If you are a person with a disability and anticipate needing any type of accommodation in order to participate in this class, please advise me and make appropriate arrangement with Disability Services (304-293-6700).

Academic Integrity:

The integrity of the classes offered by any academic institution solidifies the foundation of its mission and cannot be sacrificed to expediency, ignorance, or blatant fraud. Therefore, I will enforce rigorous standards of academic integrity in all aspects and assignments of this course. For the detailed policy of West Virginia University regarding the definitions of acts considered to fall under academic dishonesty and possible ensuing sanctions, please see the Student Conduct Code at

<u>http://studentlife.wvu.edu/office of student conduct/student conduct code</u>. Should you have any questions about possibly improper research citations or references, or any other activity that may be interpreted as an attempt at academic dishonesty, please see me before the assignment is due to discuss the matter.

Assignment Summary:

Week #1: The National Airspace System and the Air Traffic Control System

Assignment	Due Date	Specifics
Textbook Readings Instrument Flying Handbook (IFH) Instrument Procedures Handbook (IPH)	Wednesday	IFH Chapter 1 – The National Airspace System IFH Chapter 2 – The Air traffic Control System IPH Chapter 1 - IFR Operations in the National Airspace System
Discussion Questions	Wednesday	Respond to Week #1 discussion question(s).
Discussion Questions	Thursday	Reply to at least one classmate's response to the Week's discussion questions.
Week 1 Test	Saturday	Complete the week 1 test

Week #2: Human and Aerodynamic Factors

Assignment	Due Date	Specifics
Textbook Readings Instrument Flying Handbook	Wednesday	Chapter 3 – Human Factors Chapter 4 – Aerodynamic Factors
Discussion Questions	Wednesday	Respond to Week #2 discussion question(s).
Discussion Questions	Thursday	Reply to at least one classmate's response to the Week's discussion questions.
Week 2 Test	Saturday	Complete week 2 test.

Week #3: Flight Instruments and Instrument Flying

Assignment	Due Date	Specifics
Textbook Readings	Wednesday	Chapter 5 – Flight Instruments Chapter 6 – Airplane Attitude Instrument

Instrument Flying Handbook		Flying, Sections I & II
Discussion Questions	Wednesday	Respond to Week #3 discussion question(s).
Discussion Questions	Thursday	Reply to at least one classmate's response to the Week's discussion questions.
Week 3 Test	Saturday	Complete week 3 test

Week #4: Basic Flight Maneuvers & Navigation Systems

Assignment	Due Date	Specifics
Textbook Readings	Wednesday	Chapter 7 – Airplane Basic Flight Maneuvers, Sections I & II Chapter 9 – Navigation Systems
Discussion Questions	Wednesday	Respond to Week #4 discussion question(s).
Discussion Questions	Thursday	Reply to at least one classmate's response to the Week's discussion questions.
Week 4 Test	Saturday	Complete week 4 test

Week #5: IFR Flight; Takeoffs and Departures

Assignment	Due Date	Specifics
Textbook Readings Instrument Flying Handbook (IFH) Instrument Procedures Handbook (IPH)	Wednesday	IFH Chapter 10 - Pages 10-1 through 10-7 IPH Chapter 1 & 2 - IFR Operations in the National Airspace System & Takeoffs and Departures
Discussion Questions	Wednesday	Respond to Week #5 discussion question(s).
Discussion Questions	Thursday	Reply to at least one classmate's response to the Week's discussion questions.
Week 5 Test	Saturday	Complete week 5 test

Week #6: IFR Flight; En Route

Assignment	Due Date	Specifics
Textbook Readings Instrument Flying Handbook (IFH) Instrument Procedures Handbook (IPH)	Wednesday	IFH Chapter 10 - Pages 10-7 through 10-13; 10-22 through 10-33 IPH Chapter 3 - En Route Operations
Discussion Questions	Wednesday	Respond to Week #6 discussion question(s).
Discussion Questions	Thursday	Reply to at least one classmate's response to the Week's discussion questions.
Week 6 Test	Saturday	Complete week 6 test.

Week #7: IFR Flight; Arrivals and Approaches

Assignment	Due Date	Specifics
Textbook Readings Instrument Flying Handbook (IFH) Instrument Procedures Handbook (IPH)	Wednesday	IFH Chapter 10 – Pages 10-13 through 10-22 IPH Chapters 4 & 5 Arrivals and Approaches
Discussion Questions	Wednesday	Respond to Week #7 discussion question(s).
Discussion Questions	Thursday	Reply to at least one classmate's response to the Week's discussion questions.
Week 7 Test	Saturday	Complete week 7 test.

Week #8: Emergencies and Review

Assignment	Due Date	Specifics
Textbook Readings Instrument Flying Handbook	Wednesday	Chapter 11 – Emergency Operations
Discussion Questions	Wednesday	No discussion question. Study for test!
Discussion Questions	Thursday	No reply. Study for test!
Final Examination	Saturday	Comprehensive Final Exam.

Course: AVIA 231 Commercial Pilot

School/Department:

College of Business, Humanities & Social Sciences, Department of Aviation

Semester: Fall 2015

Course Format and Credit Hours:

4 credit hour eCampus/flight course. Flight students will also complete the associated 4 credit hour AVIA 291 Professional Field Experience course.

Prerequisites:

Enrollment in this course requires the approval of the aviation program director. Students requiring the flight training associated with this course must co-enroll in AVIA 291 Professional Field Experience. Please contact the Aviation Department for more information.

Instructor:

Frank David Robbins, ATP, CFIIMEI, Interim Aviation Program Coordinator, COBE 319, <u>Frank.Robbins@mail.wvu.edu</u>, 304-442-3005, fax 304-442-3810.

Schedule:

This is an 8 week course with both online and flight components. The online component contains 8 weekly modules. Each module begins at 12:01 a.m. on Sunday and ends at 12:00 p.m. the following Saturday. The flight component is conducted at an approved flight training center and requires the student to also enroll in AVIA 291 Professional Field Experience.

Location: Web/online and at the flight training center

<u>Office</u>: COBE 319

<u>Office Hours</u>: M-F, 8:00 – 4:30

Course Description:

Provides knowledge and skills required to obtain a FAA commercial pilot certificate. Topics include regulations, aerodynamics, meteorology, performance, limitations, pilotage, dead

reckoning, navigation aids, aeronautical decision making, aircraft systems, night and high altitude operations, and commercial maneuvers.

Course Objectives:

Students will develop the knowledge and skills needed to safely exercise the privileges, limitations and responsibilities as a Federal Aviation Administration (FAA) commercial pilot certificate and to pass the FAA commercial pilot knowledge examination. Topics of study include aerodynamics, aircraft systems, resource management, FAA regulations applicable to the commercial pilot, U.S. airspace system, weight and balance, aircraft performance, aviation weather, flight publications, emergency procedures, cross-country planning and navigation, basic flight physiology, and flight safety.

Learning Outcomes:

Upon the completion of this course, student will learn the following material(s) and have the following competencies:

- Use the required aeronautical knowledge and skills necessary the required aeronautical to operate as a <u>commercial pilot</u>. [Bloom's: Application]
- Demonstrate a working knowledge of the national airspace system and federal aviation regulations, flight information and communication at a <u>commercial pilot</u> level. [Bloom's: Application]
- Explain flight principles, aerodynamics, the flight environment, navigation, meteorology for pilots, limitations of the commercial pilot certificate, commercial flight maneuvers, basic human factors, and have an in-depth knowledge of aircraft systems. [Bloom's: Application]
- Exhibit the knowledge, skills, and maneuvers necessary to successfully pass the FAA <u>commercial pilot</u> airplane knowledge and practical examinations on the first attempt. [Bloom's: Application]

Required Text:

Jeppesen Guided Flight Discovery Instrument Commercial Manual, Jeppesen, Englewood, CO. ISBN# 9780884873877

Jeppesen Commercial Pilot FAA Airman Knowledge Test Guide. Jeppesen, Englewood, CO. ISBN# 9780884875413

Federal Aviation Regulations/Aeronautical Information (FAR/AIM) Manual (2013). Federal Aviation Administration. Jeppesen, Englewood, CO. ISBN: 9780884875840.

Federal Aviation Regulations available online: http://ecfr.gpoaccess.gov/cgi/t/text/text-idx?c=ecfr&tpl=/ecfrbrowse/Title14/14tab_02.tpl

Aeronautical Information Manual available online: http://www.faa.gov/air_traffic/publications/atpubs/aim/ Commercial Pilot Practical Test Standards for Airplane. Federal Aviation Administration FAA-S-8081-12C with Changes 1, 2, 3, & 4. Available online: <u>http://www.faa.gov/training_testing/testing/test_standards/#pilot/</u>

Airplane Flying Handbook. Federal Aviation Administration, FAA-H-8083-3A. Available online: <u>http://www.faa.gov/regulations_policies/handbooks_manuals/aircraft/airplane_handbook/</u>

Pilot's Handbook of Aeronautical Knowledge. Federal Aviation Administration, FAA-H-8083-25A. Available online: http://www.faa.gov/regulations_policies/handbooks_manuals/

Grading:

The student will be evaluated in this course on the following criteria:

Course Element	Points	Percentage
Discussion Posts	200	21%
Section Tests (7)	350	37%
Final Examination (100 questions)	400	42%
Total	950	100%

Note: Points may be lost for late or missing submissions. See Late Assignments for details.

Grade Scale:

100 – 90	Α
89 – 80	В
79 – 70	С
69 – 60	D
59 – 0	F

Grading Policy:

Discussion posts will be graded on a student's meaningful contribution to the discussion. A post will be considered acceptable if it provides additional information, clarifies a question, provides different prospective, raises a question, or in some other way contributes to the overall discussion. Simply agreeing with another student's post is not considered acceptable.

The four section tests consist of multiple choice questions similar to the questions on the FAA knowledge examination. Each test includes 60 questions and each question has a value of 2 points.

The comprehensive final exam consists of multiple choice questions similar to the questions on the FAA knowledge examination. The tests contains 100 questions and each question has a value of 4 points.

Final Grade of Incomplete Policy:

Note: This is an on-line course. As such an incomplete grade is highly discouraged. The WVU eCampus system will close the course soon after the course end date, making it impossible for the student to have access to further course material such as tests or discussion questions. The submission of any remaining work must be coordinated between the student and the instructor and must be submitted directly to the instructor.

The grade of I (Incomplete) will be given only when the instructor believes that the course work is unavoidably incomplete.

1. Students must complete unfinished work, by the end of the next semester enrolled (Fall, Spring, Summer) for any course in which they have received an incomplete.

2. The student is responsible for contacting the instructor of record to develop a written plan to complete the work.

Participation (Attendance) Policies:

Each week students will log on to the course on the eCampus website and complete the weekly assignment by Wednesday of that week. Each student will post his/her response to the discussion question by Thursday and respond to at least one other post by the end of the week. The additional elements of the discussion questions and responses are designed to help students work through the course material as well as interact with the instructor and other students.

Discussion questions are critical for your grade.

Late Assignments:

This is an interactive on-line course. As such it is critical that students participate weekly with not just reading and test questions but with participation in the discussion questions.

One outcome of the course is to help students develop the work ethic and discipline required in aviation. Timeliness is a characteristic required of all professional pilots. Therefore, each student is expected to submit all work on time.

Nevertheless, extenuating circumstances do arise. Limited exceptions will be made for late participation when individual circumstances make it difficult for the student to meet the weekly demands of the course. These exceptions will be **limited**. Please make every effort to keep up, especially with the discussion questions. Late participation in discussion questions for any reason may result in a grade penalty, specifically the loss the points associated with that week's questions.

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http://studentlife.wvu.edu/office of student conduct/student conduct code. Should you have any questions about possibly improper research citations or references, or any other activity that may be interpreted as an attempt at academic dishonesty, please see me before the assignment is due to discuss the matter.

eCampus Assignment Summary:

Week #1: Commercial Pilot Privileges and Limitations

Assignment	Due Date	Specifics	
Textbook Readings Jeppesen GDF Instrument Commercial Manual (ICM) Chapter 1, Sections A & B	Wednesday	Commercial aviation training, human factors concepts.	
Discussion Questions	Wednesday	Respond to Week #1 discussion question(s).	
Discussion Questions	Thursday	Reply to at least one classmate's response to the Week's discussion questions.	
FAA Publications	Wednesday	Pilot's Handbook of Aeronautical Knowledge, Chapter 1: Introduction to Flying, Chapter 16: Aeromedical Factors. Airplane Flying Handbook, Chapter 1: Introduction to Flight Training. Review the following FARs: 14 CFR Part 61.133, Commercial Pilot Privileges and Limitations	
Week 1 Test	Saturday	Complete week 1 test.	

Week #2: Aircraft Systems

Assignment	Due Date	Specifics	
Textbook Readings Jeppesen ICM Chapter 3, Sections A & B	Wednesday	Airports, airspace and flight information, air traffic control system.	
Discussion Questions	Wednesday	Respond to Week #2 discussion question(s).	
Discussion Questions	Thursday	Reply to at least one classmate's response to the Week's discussion questions.	
FAA publications	Wednesday	Aeronautical Information Manual, Chapter 2: Aeronautical Lighting and Other Visual Aids, Chapter 3: Airspace, Chapter 4: Air Traffic Control Pilot's Handbook of Aeronautical Knowledge, Chapter 13 Airport Operations, Chapter 14 Airspace	
Week 2 Test	Saturday	Complete week 2 test.	
Week #3: Navigation and Lost Procedures

Assignment	Due Date	Specifics	
Textbook Readings Jeppesen ICM Chapter 9, Sections A-E	Wednesday	Meteorology, weather hazards, reports and forecasts, graphic weather products, sources of flight information.	
Discussion Questions	Wednesday	Respond to Week #3 discussion question(s).	
Discussion Questions	Thursday Reply to at least one classmate's respon the Week's discussion questions.		
FAA Publications	Pilots Handbook of Aeronautical Knowl Chapter 11: Weather Theory, Chapter 12WednesdayAviation Weather ServicesAeronautical Information Manual, Chap7: Safety of Flight		
Week 3 Test	Saturday	Complete week 3 test.	

Week #4: Flight Instruments

Assignment	Due Date	Specifics	
Textbook Readings Jeppesen ICM Chapter 11, Sections A - C	Wednesday	High performance powerplants, environmental and ice control systems, retractable landing gear.	
Discussion Questions	Wednesday	Respond to Week #4 discussion question(s).	
Discussion Questions	Thursday	Reply to at least one classmate's response to the Week's discussion questions.	
FAA Publications	Wednesday	Pilot's Handbook of Aeronautical Knowledge, Chapter 6: Aircraft Systems Airplane Flying Handbook, Chapter 11: Transition to Complex Airplanes	
Week 4 Test	Saturday	Complete week 4 test.	

Week #5: Commercial Pilot Regulations

Assignment	Due Date	Specifics	
Textbook Readings Jeppesen ICM Chapter 12, Sections A - C	Wednesday	Advanced aerodynamics, predicting performance, controlling weight and balance	
Discussion Questions	Wednesday	Respond to Week #5 discussion question(s).	
Discussion Questions	Thursday	Reply to at least one classmate's response to the Week's discussion questions.	
FAA Publications	Wednesday	Pilots Handbook of Aeronautical Knowledge , Chapter 3 Principles of Flight, Chapter 4: Aerodynamics of flight, Chapter 9: Weight and balance, Chapter 10: Aircraft Performance Airplane Flying Handbook , Chapters 11-15	
Week 5 Test	Saturday	Complete week 5 test.	

Week #6: Aircraft Performance

Assignment	Due Date	Specifics	
Textbook Readings Jeppesen ICM Chapter 13, Sections A - B	Wednesday	Commercial Flight Considerations: Emergency procedures, commercial decision making.	
Discussion Questions	Wednesday	Respond to Week #6 discussion question(s).	
Discussion Questions	Thursday Reply to at least one classmate's res		
FAA Publications	Wednesday	Pilot's Handbook of Aeronautical Knowledge, Chapter 8, Flight Manuals and other documents, Chapter 17: Aeronautical Decision-Making Airplane Flying Handbook, Chapter 16: Emergency Procedures	
Week 6 Test	Saturday	Complete week 6 test.	

Week #7: IFR Operations

Assignment	Due Date	Specifics	
Textbook Readings Jeppesen ICM Chapter 14, Sections A - E	Wednesday	Commercial maneuvers, maximum performance takeoffs and landings, steep turns, chandelles, lazy eights, eights on pylons.	
Discussion Questions	Wednesday	Respond to Week #7 discussion question(s).	
Discussion Questions	Thursday	Reply to at least one classmate's response to the Week's discussion questions.	
Federal Aviation Regulations	Wednesday	Airplane Flying Handbook, Chapter 5 Takeoff and Departure Climbs, Chapter 6: Ground Reference Maneuvers, Chapter 8 Approaches and Landing, Chapter 9 Performance Maneuvers	
Week 7 Test	Saturday	Complete week 7 test.	

Week #8: Unit Title

Assignment	Due Date	Specifics	
Textbook Readings Review chapters listed in weeks 1 - 7	All Week	Review the Commercial Pilot FAA Airman Knowledge Test Guide.	
Discussion Questions	Wednesday	Respond to Week #8 discussion question(s).	
Discussion Questions	Thursday	Reply to at least one classmate's response to the Week's discussion questions.	
FAA Publications	All Week	Review the Commercial Pilot FAA Airman Knowledge Test Guide	
Test	Saturday	Comprehensive Final Exam.	

Flight Assignment Summary:

The flight assignment summary will be provided by the flight training provider.

Course:

AVIA 241 Multi-Engine Rating

School/Department:

College of Business, Humanities & Social Sciences, Department of Aviation

Semester: Fall 2015

Course Format and Credit Hours:

2 credit hour eCampus/flight course. Flight students will also complete the associated 1 credit hour AVIA 291 Professional Field Experience course.

Prerequisites:

Enrollment in this course requires the approval of the aviation program director. Students requiring the flight training associated with this course must co-enroll in AVIA 291 Professional Field Experience. Please contact the Aviation Department for more information.

Instructor:

Frank David Robbins, ATP, CFIIMEI, Interim Aviation Program Coordinator, COBE 319, <u>Frank.Robbins@mail.wvu.edu</u>, 304-442-3005, fax 304-442-3810.

Schedule:

This is an 8 week course with both online and flight components. The online component contains 8 weekly modules. Each module begins at 12:01 a.m. on Sunday and ends at 12:00 p.m. the following Saturday. The flight component is conducted at an approved flight training center and requires the student to also enroll in AVIA 291 Professional Field Experience.

Location: 2 credit hour eCampus/flight course

Office: COBE 319

<u>Office Hours</u>: M-F, 8:00 – 4:30

Course Description:

Provides the knowledge and skills necessary to safely and proficiently exercise the privileges and responsibilities of a multi-engine aircraft rating. Includes multi-engine aircraft systems, multi-engine aerodynamics, weight and balance, aircraft performance, and abnormal/emergency procedures.

Course Objectives:

Students will develop the knowledge and skills needed to safely exercise the privileges, limitations and responsibilities as a Federal Aviation Administration (FAA) multi-engine airplane pilot and to pass the FAA multi-engine pilot knowledge and practical examinations. Topics of study include aerodynamics, aircraft systems, resource management, FAA regulations applicable to the multi-engine pilot, weight and balance, multi-engine aircraft performance, emergency procedures, cross-country planning and navigation, and flight safety.

Learning Outcomes:

Upon the completion of this course, student will learn the following material(s) and have the following competencies:

- Describe the human factors concepts associated with piloting multi-engine airplanes. [Bloom's: Comprehension]
- Explain the function and operation multi-engine airplane systems. [Bloom's: Application]
- List multi-engine aerodynamic principles including engine-inoperative aerodynamics. [Bloom's: Application]
- Compute the weight and balance of and determine performance specific to multi-engine airplanes. [Bloom's: Application]
- Demonstrate the elements of multi-engine flight maneuvers including: takeoffs, landings, and go-arounds; slow flight and stalls; VMC demonstration; and emergency operations to applicable FAA standards. [Bloom's: Application]
- Tell how to increase safety by applying the aeronautical decision making process while flying multi-engine airplanes. [Bloom's: Application]
- Exhibit the knowledge, skills, and maneuvers necessary to successfully pass FAA <u>multi-</u><u>engine</u> practical examination on the first attempt. [Bloom's: Application]

Required Text:

Pomering, C., Schifferens, T., Shockley, K., & Stout, C., Guided Flight Discovery Multi Engine. Englewood, CO: Jeppesen. ISBN: 9780884873358

Federal Aviation Regulations/Aeronautical Information (FAR/AIM) Manual (2013). Federal Aviation Administration. Jeppesen, Englewood, CO. ISBN: 9780884875840.

Federal Aviation Regulations available online: http://ecfr.gpoaccess.gov/cgi/t/text/text-idx?c=ecfr&tpl=/ecfrbrowse/Title14/14tab_02.tpl

Aeronautical Information Manual available online: http://www.faa.gov/air traffic/publications/atpubs/aim/ Commercial Pilot Practical Test Standards for Airplane. Federal Aviation Administration FAA-S-8081-12C with Changes 1, 2, 3, & 4. Available online: http://www.faa.gov/training_testing/testing/test_standards/#pilot/

Airplane Flying Handbook. Federal Aviation Administration, FAA-H-8083-3A. Available online: <u>http://www.faa.gov/regulations_policies/handbooks_manuals/aircraft/airplane_handbook/</u>

Pilot's Handbook of Aeronautical Knowledge. Federal Aviation Administration, FAA-H-8083-25A. Available online: http://www.faa.gov/regulations_policies/handbooks_manuals/

Grading:

The student will be evaluated in this course on the following criteria:

Course Element	Points	Percentage
Discussion Posts	200	19%
Section Tests (4)	480	44%
Final Examination	400	37%
Total	1080	100%

Note: Points may be lost for late or missing submissions. See <u>Late Assignments</u> for details.

Grade Scale:

100 – 90	Α
89 – 80	В
79 – 70	С
69 – 60	D
59 – 0	F

Grading Policy:

Discussion posts will be graded on a student's meaningful contribution to the discussion. A post will be considered acceptable if it provides additional information, clarifies a question, provides different prospective, raises a question, or in some other way contributes to the overall discussion. Simply agreeing with another student's post is not considered acceptable.

The four section tests consist of multiple choice questions similar to the questions on the FAA knowledge examination. Each test includes 60 questions and each question has a value of 2 points.

The comprehensive final exam consists of multiple choice questions similar to the questions on the FAA knowledge examination. The tests contains 100 questions and each question has a value of 4 points.

Final Grade of Incomplete Policy:

Note: This is an on-line course. As such an incomplete grade is highly discouraged. The WVU eCampus system will close the course soon after the course end date, making it impossible for the student to have access to further course material such as tests or discussion questions. The submission of any remaining work must be coordinated between the student and the instructor and must be submitted directly to the instructor.

The grade of I (Incomplete) will be given only when the instructor believes that the course work is unavoidably incomplete.

1. Students must complete unfinished work, by the end of the next semester enrolled (Fall, Spring, Summer) for any course in which they have received an incomplete.

2. The student is responsible for contacting the instructor of record to develop a written plan to complete the work.

Participation (Attendance) Policies:

Each week students will log on to the course on the eCampus website and complete the weekly assignment by Wednesday of that week. Each student will post his/her response to the discussion question by Thursday and respond to at least one other post by the end of the week. The additional elements of the discussion questions and responses are designed to help students work through the course material as well as interact with the instructor and other students. Students are encouraged to post not only answers to specific questions, but to delve into the personal aspects of aviation, such as why you wish to fly, your career goals, and your greatest fears about flying.

Discussion questions are critical for your grade.

Late Assignments:

This is an interactive on-line course. As such it is critical that students participate weekly with not just reading and test questions but with participation in the discussion questions.

One outcome of the course is to help students develop the work ethic and discipline required in aviation. Timeliness is a characteristic required of all professional pilots. Therefore, each student is expected to submit all work on time.

Nevertheless, extenuating circumstances do arise. Limited exceptions will be made for late participation when individual circumstances make it difficult for the student to meet the weekly demands of the course. These exceptions will be **limited**. Please make every effort to keep up, especially with the discussion questions. Late participation in discussion questions for any reason may result in a grade penalty, specifically the loss the points associated with that week's questions.

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Academic Integrity:

The integrity of the classes offered by any academic institution solidifies the foundation of its mission and cannot be sacrificed to expediency, ignorance, or blatant fraud. Therefore, I will enforce rigorous standards of academic integrity in all aspects and assignments of this course. For the detailed policy of West Virginia University regarding the definitions of acts considered to fall under academic dishonesty and possible ensuing sanctions, please see the Student Conduct Code at

http://studentlife.wvu.edu/office of student conduct/student conduct code. Should you have any questions about possibly improper research citations or references, or any other activity that may be interpreted as an attempt at academic dishonesty, please see me before the assignment is due to discuss the matter.

eCampus Assignment Summary:

Week Readings & Assignments

- Week 1 Exploring the Multi-Engine Rating; Read: Chapter 1 GFD Multi-Engine Textbook. Answer to Week 1 discussion question by Wednesday, reply to at least one classmate's discussion post by Thursday. See weekly schedule for info on additional reading and resources, discussion questions, and specific homework assignments.
- Week 2 Understanding Your Airplane; Read: Chapter 2 GFD Multi-Engine Textbook.
 Answer to Week 1 discussion question by Wednesday, reply to at least one classmate's discussion post by Thursday. See weekly schedule for info on additional reading and resources, discussion questions, and specific homework assignments.
- Week 3 Discovering Aerodynamics; Read: Chapter 3 GFD Multi-Engine Textbook. Answer to Week 1 discussion question by Wednesday, reply to at least one classmate's discussion post by Thursday. See weekly schedule for info on additional reading and resources, discussion questions, and specific homework assignments.
- Week 4 Performing Maneuvers and Procedures; Read: Chapter 4 GFD Multi-Engine
 Textbook. Answer to Week 1 discussion question by Wednesday, reply to at
 least one classmate's discussion post by Thursday. See weekly schedule for info

on additional reading and resources, discussion questions, and specific homework assignments.

- Week 5 Mastering Engine-Out Operations; Read: Chapter 5 GFD Multi-Engine Textbook. Answer to Week 1 discussion question by Wednesday, reply to at least one classmate's discussion post by Thursday. See weekly schedule for info on additional reading and resources, discussion questions, and specific homework assignments.
- Week 6 Practical Application Piper Seminole Systems & Limitations; Read: Sections 1, 2, and 7 of the Piper Seminole Pilot's Information Manual. Answer to Week 1 discussion question by Wednesday, reply to at least one classmate's discussion post by Thursday. See weekly schedule for info on additional reading and resources, discussion questions, and specific homework assignments.
- Week 7 Practical Application Piper Seminole Weight & Balance and Performance; Read:
 Sections 5 and 6 of the Piper Seminole Pilot's Information Manual. Answer to
 Week 1 discussion question by Wednesday, reply to at least one classmate's
 discussion post by Thursday. See weekly schedule for info on additional reading
 and resources, discussion questions, and specific homework assignments.
- Week 8 Practical Application Piper Seminole Maneuvers and Procedures; Read: Sections 3 and 4 of the Piper Seminole Pilot's Information Manual. Answer to Week 1 discussion question by Wednesday, reply to at least one classmate's discussion post by Thursday. See weekly schedule for info on additional reading and resources, discussion questions, and specific homework assignments.

Flight Assignment Summary:

The flight assignment summary will be provided by the flight training provider.

<u>Course:</u> AVIA 281 Professional Field Experience II

School/Department:

College of Business, Humanities & Social Sciences, Department of Aviation

Semester: Fall 2015

Course Format and Credit Hours:

1-8 credit hour flight course conducted at an approved flight training partner location. Students may re-enroll in this course until a total of 8 credit hours have been obtained.

Course Overview:

This course provides the flight experience required to earn a Federal Aviation Administration commercial pilot certificate with instrument, single and multi-engine ratings. It is conducted concurrently with AVIA 200 level courses. It is conducted at an approved flight training provider location and will require the student relocate to and have accommodations at the flight training location. The student is required to meet all FAA, flight training organization, and WVUIT requirements, including medical requirements. The tuition for this course is substantial, and is not refundable. Additionally, flight training is an inherently dangerous activity potentially resulting in serious injury or death. By enrolling in the course the student acknowledges this, agrees to act in a safe and responsible manner, and waives any and all claims against WVUIT, WVU and the flight training provider.

Prerequisites:

Enrollment in this course requires the approval of the aviation program director. Students must also be co-enrolled in the applicable AVIA 200 level course. A Federal Aviation Administration (FAA) second class medical certificate and private pilot certificate is required before starting this course. Please contact the Aviation Program Coordinator for more information.

Instructor:

Frank David Robbins, ATP, CFIIMEI, Interim Aviation Program Coordinator, COBE 319, <u>Frank.Robbins@mail.wvu.edu</u>, 304-442-3005, fax 304-442-3810.

Schedule:

8-16 week course, with a minimum of 3 scheduled flight lessons per week. Flight lessons will be scheduled through the approved flight training provider. Students should be prepared to fly at any time, on any day of the week, unless prior arrangements have been made.

Location:

Any approved flight training provider location.

<u>Office</u>: COBE 319

<u>Office Hours</u>: M-F, 8:00 – 4:30

Course Description:

Flight training conducted in conjunction with intermediate level courses.

Course Objectives:

Students will develop the knowledge, skills, and experience necessary to obtain the applicable FAA pilot certificate or rating.

Expected Learning Outcomes:

Upon the completion of this course, student will learn the following material(s) and have the following competencies:

- Demonstrate the required aeronautical knowledge and skills necessary to complete each flight lesson within standards. [Bloom's: Application]
- Exhibit the knowledge, skills, and maneuvers necessary to successfully pass the applicable FAA practical test. [Bloom's: Application]

Required Text:

Refer to the syllabus for the applicable AVIA course for specific textbook information.

Grading:

The student will be evaluated in this course on the following criteria:

Course Element	Points	Percentage
Prompt attendance for each flight session	300	30%
Proper preparation for lessons	300	30%
Completion of course within allocated flight time	300	30%
Successful completion of FAA practical test		
on the first attempt	100	10%
Total	1000	100%

Note: Points may be lost for late completion of the course. See Late Assignments for details.

A
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59–0 F

Grading Policy:

Course Participation: Students are expected to punctually arrive at each training center appointment, complete reading assignments and lessons on time, and actively participate in all briefings.

Preparation for Lessons: Students are expected to prepare for each lesson in advance by following the course syllabus and materials, following instructor assignments, reading course materials and utilizing available student resources.

Lesson Completion Standards: Students will be evaluated on their ability to meet the completion standards stated at the end of each lesson. Lessons may require more than one flight to meet the standards.

On-Schedule Course Completion: Students are expected to complete the course by the scheduled end of the course. This requires the student be aggressive in attendance and scheduling, as weather and mechanical delay conspire to delay training.

Course Completion within Flight Time Allowance: Students are expected to complete the course within the allocated flight time. If a student exceed the allocated flight time by more than 10%, there will be a 100 point reduction in the student's grade for each 10% overrun.

Successful Completion of FAA Practical Test on First Attempt: Students will be penalized 10% for failure to successfully pass the FAA practical test on the first attempt.

Final Grade of Incomplete Policy:

The grade of I (Incomplete) will be given only when the instructor believes that the course work is unavoidably incomplete.

1. Students must complete unfinished work, by the end of the next semester enrolled (Fall, Spring, Summer) for any course in which they have received an incomplete.

2. The student is responsible for contacting the instructor of record to develop a written plan to complete the work.

Participation (Attendance) Policies:

Students are expected to punctually arrive at each training center appointment, complete reading assignments and lessons on time, and actively participate in all briefings. Students are also expected to prepare for each lesson in advance by following the course syllabus and materials, following instructor assignments, reading course materials and utilizing available student resources.

Students that consistently fail to arrive promptly for flight lessons will fail the course and are not eligible for a refund of flight fees.

Unsafe Aircraft Operations: If a student engages in any type of intentional unsafe operation of an aircraft, that student will immediately fail the course, be removed from the program and no refunds will be issued.

Inclement Weather: Flight training may only be conducted in suitable weather, as determined by the flight school operator and the flight instructor. It is not the student's decision to decide what weather is acceptable for flight training. The student is expected to arrive at the training center for all flight lessons, unless specifically instructed by the instructor of training center operations no to do so.

Late Assignments:

One outcome of the course is to help students develop the work ethic and discipline required in aviation. Timeliness is a characteristic required of all professional pilots. Therefore, each student is expected to complete the course on time.

Nevertheless, extenuating circumstances do arise. Limited exceptions will be made for late participation when individual circumstances make it difficult for the student to meet the weekly demands of the course. These exceptions will be **limited**. Please make every effort to keep up. Late participation for any reason may result in a grade penalty.

Inclusivity Statement:

West Virginia University community is committed to creating and fostering a positive learning and working environment based on open communication, mutual respect and inclusion.

If you are a person with a disability and anticipate needing any type of accommodation in order to participate in this class, please advise me and make appropriate arrangement with Disability Services (304-293-6700).

Academic Integrity:

The integrity of the classes offered by any academic institution solidifies the foundation of its mission and cannot be sacrificed to expediency, ignorance, or blatant fraud. Therefore, I will enforce rigorous standards of academic integrity in all aspects and assignments of this course. For the detailed policy of West Virginia University regarding the definitions of acts considered to fall under academic dishonesty and possible ensuing sanctions, please see the Student Conduct Code at

<u>http://studentlife.wvu.edu/office of student conduct/student conduct code</u>. Should you have any questions about possibly improper research citations or references, or any other activity that may be interpreted as an attempt at academic dishonesty, please see me before the assignment is due to discuss the matter.

Assignment Summary:

Specific assignments and schedules will be determined by the flight training provider.

<u>Course:</u> AVIA 301 Principles of Aviation Instruction

School/Department:

College of Business, Humanities & Social Sciences, Department of Aviation

Semester: Spring 2015

<u>Course Format and Credit Hours</u>: 3 credit hour eCampus online course

<u>Prerequisites</u>: Enrollment in this course requires the approval of the aviation program director.

<u>Instructor</u>: Frank David Robbins, ATP, CFIIMEI, Interim Aviation Program Coordinator, COBE 319, <u>Frank.Robbins@mail.wvu.edu</u>, 304-442-3005, fax 304-442-3810.

Schedule:

8 week web/online, with weekly sessions. Each session begins at 12:01 a.m. on Sunday and ends at 12:00 a.m. on Saturday.

<u>Location</u>: Web/online

<u>Office</u>: COBE 319

<u>Office Hours</u>: M-F, 8:00 – 4:30

Required Textbook:

FAA-H-8083-9A, Aviation Instructors Handbook, 2008. http://www.faa.gov/about/office_org/headquarters_offices/avs/offices/afs/afs600

FAA Sample Lesson Plans, available at: http://www.faa.gov/regulations_policies/handbooks_manuals/aviation/aviation_instructors_h

Course Description:

andbook/media/sample lesson plans.pdf

Addresses the fundamentals of learning, lesson plans, and the teaching environment. Emphasis is placed on the organization, composition, and presentation of lessons to individuals and groups in preparation for Fundamentals of Instruction knowledge examination and flight instructor practical tests.

Course Learning Outcomes:

Upon completion of this course the student should:

- Assess human behavior, including personality types and the instructor-student relationship, in order to enhance teaching techniques. [Bloom's: Evaluation]
- Determine the factors involved in the learning process, including learning theory, perceptions, laws of learning, and domains of learning. [Bloom's: Analysis]
- Develop effective communication skills for use in both the classroom and cockpit environments. [Bloom's: Synthesis]
- Incorporate effective teaching methodologies, including lesson planning and preparation skills, into teaching practices. [Bloom's: Synthesis]
- Appraise assessment procedures and how assessment relates to both the student and the instructor. [Bloom's: Evaluation]

Course Policies:

Chapter tests are open book. There is no time limit on these tests.

Discussion questions are critical for your grade. Your personal experiences and options are appreciates, however referencing outside materials and including the references will produce higher grades on the discussion questions.

The final examination is a timed test. Technically, it is open book, but you will only be allowed one minute per question. Plan accordingly!

Grading:

Coursework will be evaluated according to the point distribution shown below:

Activity	Points
Weekly test questions (50 points per week)	400
Weekly discussion questions (50 points each)	400
Final examination	400
Research paper (400 points)	400
Total Points	1600

Grade Assignment:

At the end of the course, a letter grade will be assigned based upon the following grading scale:

Points Earned	Grade
1441-1600	А
1281-1440	В
1121-1280	С
961-1120	D
960 & below	F

Final Grade of Incomplete Policy:

Note: This is an online course. As such an incomplete grade is highly discouraged. The WVU eCampus system will close the course soon after the course end date, making it impossible for the student to have access to further course material such as tests or discussion questions. The submission of any remaining work must be coordinated between the student and the instructor and must be submitted directly to the instructor.

The grade of I (Incomplete) will be given only when the instructor believes that the coursework is unavoidably incomplete.

Students must complete unfinished work by the end of the next semester enrolled (Fall, Spring, Summer) for any course in which they have received an incomplete.

The student is responsible for contacting the instructor of record to develop a written plan to complete the work.

Attendance Policies:

Each week students will log on to the course on the eCampus website and complete the weekly assignment by Wednesday of that week. Each student will post his/her response to the discussion question by Thursday and respond to at least one other post by the end of the week. The additional elements of the discussion questions and responses are designed to help students work through the course material as well as interact with the instructor and other students.

Discussion questions are critical for your grade.

Late Assignments:

This is an interactive online course. As such it is critical that students participate weekly with not just reading and test questions but with participation in the discussion questions.

One goal of the course is to help students develop the work ethic and discipline required in aviation. Timeliness is a characteristic required of all professional pilots. Therefore, each student is expected to submit all work on time.

Nevertheless, extenuating circumstances do arise. Limited exceptions will be made for late participation when individual circumstances make it difficult for the student to meet the weekly demands of the course. These exceptions will be **limited**. Please make every effort to keep up,

especially with the discussion questions. Late participation in discussion questions for any reason may result in a grade penalty, specifically the loss the points associated with that week's questions.

Late submission of tests will result in a reduction of 10 points per test.

Inclusivity Statement:

West Virginia University is committed to social justice. I concur with that commitment and expect to maintain a positive learning environment based upon open communication, mutual respect, and non-discrimination. Our University does not discriminate on the basis of race, sex, age, disability, veterans' status, religion, sexual orientation, color or national origin. Any suggestions as to how to further such a positive and open environment in this class will be appreciated and given serious consideration.

If you are a person with a disability and anticipate needing any type of accommodation in order to participate in this class, please advise me and make appropriate arrangements with the Office of Disability Services (304.293.6700).

Academic Integrity:

The integrity of the classes offered by any academic institution solidifies the foundation of its mission and cannot be sacrificed to expediency, ignorance, or blatant fraud. Therefore, I will enforce rigorous standards of academic integrity in all aspects and assignments of this course. For the detailed policy of West Virginia University regarding the definitions of acts considered to fall under academic dishonesty and possible ensuing sanctions, please see the Student Conduct Code at

http://studentlife.wvu.edu/office_of_student_conduct/student_conduct_code. Should you have any questions about possibly improper research citations or references, or any other activity that may be interpreted as an attempt at academic dishonesty, please see me before the assignment is due to discuss the matter.

Course Schedule:

Week Assignment

1 Read chapters 1

Answer Week 1 discussion question by Wednesday Respond to at least 1 classmate's post by Thursday Complete Week 1 exam by Saturday

2 Read chapter 2

Answer Week 2 discussion question by Wednesday Respond to at least 1 classmate's post by Thursday Complete Week 2 exam by Saturday 3 Read chapter 3 & 4

Answer Week 3 discussion question by Wednesday Respond to at least 1 classmate's post by Thursday Complete Week 3 exam by Saturday

4 Read chapter 5 & 6

Answer Week 4 discussion question by Wednesday Respond to at least 1 classmate's post by Thursday Complete Week 4 exam by Saturday Submit research paper outline by Saturday

5 Read chapter 7 & 8

Answer Week 1 discussion question by Wednesday Respond to at least 1 classmate's post by Thursday Complete Week 5 exam by Saturday

6 Read chapter 9

Answer Week 6 discussion question by Wednesday Respond to at least 1 classmate's post by Thursday Complete Week 6 exam by Saturday Submit research paper draft by Saturday

- Answer Week 7 discussion question by Wednesday
 Respond to at least 1 classmate's post by Thursday
 Complete Week 7 exam by Saturday
- Answer Week 8 discussion question by Wednesday Respond to at least 1 classmate's post by Thursday Complete Week 8 exam by Thursday Complete Final exam by Saturday
 Submit research paper by Saturday

<u>Course:</u> AVIA 302 Initial Flight Instructor

School/Department:

College of Business, Humanities & Social Sciences, Department of Aviation

Semester:

Spring 2015

Course Format and Credit Hours:

3 credit hour eCampus/flight course. Flight students will also complete the associated 1 credit hour AVIA 391 Professional Field Experience course.

Prerequisites:

Enrollment in this course requires the approval of the aviation program director. Students requiring the flight training associated with this course must co-enroll in AVIA 391 Professional Field Experience. Please contact the Aviation Department for more information.

Instructor:

Frank David Robbins, ATP, CFIIMEI, Interim Aviation Program Coordinator, COBE 319, <u>Frank.Robbins@mail.wvu.edu</u>, 304-442-3005, fax 304-442-3810.

Schedule:

This is an 8 week course with both online and flight components. The online component contains 8 weekly modules. Each module begins at 12:01 a.m. on Sunday and ends at 12:00 p.m. the following Saturday. The flight component is conducted at an approved flight training center and requires the student to also enroll in AVIA 391 Professional Field Experience.

<u>Location</u>: 3 credit hour eCampus/flight course

Office: COBE 319

<u>Office Hours</u>: M-F, 8:00 – 4:30

Course Description:

Provides the knowledge and skills necessary to conduct flight and ground instruction. Includes subject areas necessary for a private and commercial pilot training, intensive instruction and practice in lesson plans, in-flight instruction, debriefing, and analysis.

Course Objectives:

Flight instructor (CFI) students will learn in-depth knowledge of the material needed for the FAA private and commercial pilot knowledge, oral and practical examinations. Additionally CFI students must and be able to develop lesson plans for both private and commercial students, conduct ground and in-flight lessons, evaluate the student's comprehension of the material, determine the student's proficiency level and make appropriate recommendations that the student is prepared for the applicable endorsements, i.e. solo, private pilot, commercial pilot, etc. Topics of study include aerodynamics, aircraft systems, resource management, FAA regulations, U.S. airspace system, weight and balance, aircraft performance, aviation weather, flight publications, cross-country planning and navigation, basic flight physiology, and flight safety.

Learning Outcomes:

Upon the completion of this course, student will learn the following material(s) and have the following competencies:

- Exhibit the knowledge, skills, and maneuvers necessary to successfully pass the FAA flight instructor airplane knowledge examination and practical test on the first attempt. [Bloom's: Application]
- Communicate the required aeronautical knowledge necessary to serve as a flight instructor. [Bloom's: Synthesis]
- Communicate with and critique flight students during ground and flight instruction. [Bloom's: Synthesis & Evaluation]
- Create a lesson plan applicable to a flight student's needs on such subjects as: basic flight principles, aerodynamics, the flight environment, navigation, meteorology for pilots, basic human factors, and the fundamentals of flight. [Bloom's: Synthesis]

Required Text:

Jeppesen Private Pilot FAA Airman Knowledge Test Guide. Jeppesen, Englewood, CO. ISBN 9780884875390

Jeppesen Commercial Pilot FAA Airman Knowledge Test Guide. Jeppesen, Englewood, CO. ISBN# 9780884875413

National Transportation Safety Board Notification and reporting of Aircraft Accidents or Incidents and Overdue Aircraft, and Preservation of Aircraft Wreckage, Mail, Cargo, and Records, CFR 49, Part 830. http://www.ecfr.gov/cgi-

bin/retrieveECFR?gp=&SID=bace4774e6706d1ab5810b8a09027b55&n=49y7.1.4.1.12&r=PART &ty=HTML

Federal Aviation Regulations/Aeronautical Information (FAR/AIM) Manual (2013). Federal Aviation Administration. Jeppesen, Englewood, CO. ISBN: 9780884875840.

Federal Aviation Regulations available online: <u>http://ecfr.gpoaccess.gov/cgi/t/text/text-idx?c=ecfr&tpl=/ecfrbrowse/Title14/14tab_02.tpl</u> Aeronautical Information Manual available online: http://www.faa.gov/air_traffic/publications/atpubs/aim/

Private Pilot Practical Test Standards for Airplane. Federal Aviation Administration FAA-S-8081-14A with Change. Available online: <u>http://www.faa.gov/training_testing/test_standards/#pilot/</u>

Commercial Pilot Practical Test Standards for Airplane. Federal Aviation Administration FAA-S-8081-12C with Changes 1, 2, 3, & 4. Available online: <u>http://www.faa.gov/training_testing/testing/test_standards/#pilot/</u>

Flight Instructor Practical Test Standards for Airplane. Federal Aviation Administration FAA-S-8081-6D with Changes 1, 2, & 3. Available online: http://www.faa.gov/training_testing/testing/test_standards/#pilot/

Airplane Flying Handbook. Federal Aviation Administration, FAA-H-8083-3A. Available online: <u>http://www.faa.gov/regulations_policies/handbooks_manuals/aircraft/airplane_handbook/</u>

Pilot's Handbook of Aeronautical Knowledge. Federal Aviation Administration, FAA-H-8083-25A. Available online: http://www.faa.gov/regulations_policies/handbooks_manuals/

Grading:

The student will be evaluated in this course on the following criteria:

Course Element	Points	Percentage
Discussion Posts	200	20%
Section Tests (4)	400	40%
Final Examination	400	40%
Total	1000	100%

Note: Points may be lost for late or missing submissions. See Late Assignments for details.

Grade Scale:	
100 – 90	А
89 – 80	В
79 – 70	С
69 – 60	D
59 – 0	F

Grading Policy:

Discussion posts will be graded on a student's meaningful contribution to the discussion. A post will be considered acceptable if it provides additional information, clarifies a question,

provides different prospective, raises a question, or in some other way contributes to the overall discussion. Simply agreeing with another student's post is not considered acceptable.

The four section tests consist of multiple choice questions similar to the questions on the FAA knowledge examination. Each test includes 100 questions and each question has a value of 1 point.

The comprehensive final exam consists of multiple choice questions similar to the questions on the FAA knowledge examination. The tests contains 100 questions and each question has a value of 4 points.

Final Grade of Incomplete Policy:

Note: This is an on-line course. As such an incomplete grade is highly discouraged. The WVU eCampus system will close the course soon after the course end date, making it impossible for the student to have access to further course material such as tests or discussion questions. The submission of any remaining work must be coordinated between the student and the instructor and must be submitted directly to the instructor.

The grade of I (Incomplete) will be given only when the instructor believes that the course work is unavoidably incomplete.

1. Students must complete unfinished work, by the end of the next semester enrolled (Fall, Spring, Summer) for any course in which they have received an incomplete.

2. The student is responsible for contacting the instructor of record to develop a written plan to complete the work.

Participation (Attendance) Policies:

Each week students will log on to the course on the eCampus website and complete the weekly assignment by Wednesday of that week. Each student will post his/her response to the discussion question by Thursday and respond to at least one other post by the end of the week. The additional elements of the discussion questions and responses are designed to help students work through the course material as well as interact with the instructor and other students. Students are encouraged to post not only answers to specific questions, but to delve into the personal aspects of aviation, such as why you wish to fly, your career goals, and your greatest fears about flying.

This course is foundational to the flight instructor courses. It covers a very broad range of topics and everything in the course is important information. FAA publications are the ultimate authority for the flight instructor and this course makes extensive use of a number of these publications.

Discussion questions are critical for your grade.

Late Assignments:

This is an interactive on-line course. As such it is critical that students participate weekly with not just reading and test questions but with participation in the discussion questions.

One outcome of the course is to help students develop the work ethic and discipline required in aviation. Timeliness is a characteristic required of all professional pilots. Therefore, each student is expected to submit all work on time.

Nevertheless, extenuating circumstances do arise. Limited exceptions will be made for late participation when individual circumstances make it difficult for the student to meet the weekly demands of the course. These exceptions will be **limited**. Please make every effort to keep up, especially with the discussion questions. Late participation in discussion questions for any reason may result in a grade penalty, specifically the loss the points associated with that week's questions.

Late submission of tests will result in a reduction of 10 points per test.

Inclusivity Statement:

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If you are a person with a disability and anticipate needing any type of accommodation in order to participate in this class, please advise me and make appropriate arrangement with Disability Services (304-293-6700).

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http://studentlife.wvu.edu/office of student conduct/student conduct code. Should you have any questions about possibly improper research citations or references, or any other activity that may be interpreted as an attempt at academic dishonesty, please see me before the assignment is due to discuss the matter.

Assignment Summary:

Wook #1

Weeking		
Assignment	Due Date	Specifics
Textbook Readings Pilot's Handbook of	Wednesday	PHAK Chapter 1 - Introduction to Flying, Chapter 2 - Aircraft Structure, Chapter 3 - Principles of Flight.

Aeronautical Knowledge (PHAK) Airplane Flying Handbook (AFH)		AFH Chapter 1 – Introduction to Flight Training, Chapter 2 – Ground Operations, Chapter 7 - Airport Traffic Patterns
Discussion Questions	Wednesday	Respond to Week #1 discussion question(s).
Discussion Questions	Thursday	Reply to at least one classmate's response to the Week's discussion questions.

Week #2

Assignment	Due Date	Specifics
Textbook Readings Pilot's Handbook of Aeronautical Knowledge (PHAK) Airplane Flying Handbook (AFH)	Wednesday	PHAK Chapter 4 – Aerodynamic Principles, Chapter 5 – Flight Controls AFH Chapter 3 – Basic Flight Maneuvers, Chapter 4 – Slow Flight, Stalls, and Spins
Discussion Questions	Wednesday	Respond to Week #2 discussion question(s).
Discussion Questions	Thursday	Reply to at least one classmate's response to the Week's discussion questions.
Section 1 Test	Saturday	Take Section 1 Test
Week #3		

Assignment	Due Date	Specifics
		PHAK Chapter 6 – Aircraft Systems, Chapter 7
Textbook Readings		– Flight Instruments
Pilot's Handbook of	Mada and a c	
Aeronautical Knowledge	wednesday	AFH Chapter 5 – Takeoff and Departure
(PHAK)		Climbs, Chapter 6 – Ground Reference
Airplane Flying Handbook		Maneuvers

(AFH)		
Discussion Questions	Wednesday	Respond to Week #3 discussion question(s).
Discussion Questions	Thursday	Reply to at least one classmate's response to the Week's discussion questions.

Week #4

Assignment	Due Date	Specifics
Textbook Readings Pilot's Handbook of Aeronautical Knowledge (PHAK) Airplane Flying Handbook (AFH)	Wednesday	 PHAK Chapter 8 – Flight Manuals and Other Documents, Chapter 9 – Weight and Balance, Chapter 10, Aircraft Performance AFH Chapter 8 – Approaches and Landings, Chapter 9 – Performance Maneuvers
Discussion Questions	Wednesday	Respond to Week #4 discussion question(s).
Discussion Questions	Thursday	Reply to at least one classmate's response to the Week's discussion questions.
Section 2 Test	Saturday	Take Section 2 Test

Week #5		
Assignment	Due Date	Specifics
Textbook Readings Pilot's Handbook of Aeronautical Knowledge (PHAK) Airplane Flying Handbook (AFH)	Wednesday	PHAK Chapter – 11 Weather Theory, Chapter 12 – Aviation Weather Services AFH – Chapter 10 – Night Operations, Chapter 11 – Transition to Complex Airplanes
Discussion Questions	Wednesday	Respond to Week #5 discussion question(s).
Discussion Questions	Thursday	Reply to at least one classmate's response to the Week's discussion questions.

Week #6

Assignment	Due Date	Specifics
Textbook Readings Pilot's Handbook of Aeronautical Knowledge (PHAK) Airplane Flying Handbook (AFH)	Wednesday	PHAK Chapter 13 - Airport Operations, Chapter 14 – Airspace AFH Chapter 13 – Transition to Tailwheel Airplanes, Chapter 16 – Emergency Procedures
Discussion Questions	Wednesday	Respond to Week #6 discussion question(s).
Discussion Questions	Thursday	Reply to at least one classmate's response to the Week's discussion questions.
Section 3 Test	Saturday	Take Section 3 Test

Week #7		
Assignment	Due Date	Specifics
Textbook Readings Pilot's Handbook of Aeronautical Knowledge (PHAK) AC No: 60-22 Aeronautical Decision Making (AC 60- 22)	Wednesday	PHAK Chapter 15 – Navigation, Chapter 16 – Aeromedical Factors, Chapter 17 – Aeronautical Decision-Making AC 60-22 – Pages 1-34
Discussion Questions	Wednesday	Respond to Week #7 discussion question(s).
Discussion Questions	Thursday	Reply to at least one classmate's response to the Week's discussion questions.
Section 4 Test	Saturday	Take Section 4 Test

Week #8: Review and Test

Assignment	Due Date	Specifics
Textbook Readings Pilot's Handbook of Aeronautical Knowledge (PHAK) Airplane Flying Handbook (AFH)	Wednesday	Review all chapters in PHAK, AFH, and AC 60-22
Discussion Questions	Wednesday	Respond to Week #8 discussion question(s).
Discussion Questions	Thursday	Reply to at least one classmate's response to the Week's discussion questions.
FAA Documents	Saturday	Review the following: NTSB 830.5, 830.10, 830.15
Test	Saturday	Comprehensive Final Exam.

Flight Assignment Summary:

The flight assignment summary will be provided by the flight training provider.

Course: AVIA 304 Instrument Flight Instructor

School/Department:

College of Business, Humanities & Social Sciences, Department of Aviation

Semester: Spring 2015

Course Format and Credit Hours:

2 credit hour eCampus/flight course. Flight students will also complete the associated 1 credit hour AVIA 391 Professional Field Experience course.

Prerequisites:

Enrollment in this course requires the approval of the aviation program director. Students requiring the flight training associated with this course must co-enroll in AVIA 391 Professional Field Experience. Please contact the Aviation Department for more information.

Instructor:

Frank David Robbins, ATP, CFIIMEI, Interim Aviation Program Coordinator, COBE 319, <u>Frank.Robbins@mail.wvu.edu</u>, 304-442-3005, fax 304-442-3810.

Schedule:

This is an 8 week course with both online and flight components. The online component contains 8 weekly modules. Each module begins at 12:01 a.m. on Sunday and ends at 12:00 p.m. the following Saturday. The flight component is conducted at an approved flight training center and requires the student to also enroll in AVIA 391 Professional Field Experience.

Location: Web/On-line

<u>Office</u>: COBE 319

<u>Office Hours</u>: M-F, 8:00 – 4:30

Course Description:

A study of the material required to teach the instrument rating combined with a study of teaching responsibilities and techniques. Topics include regulations, air traffic control, navigation, instrument approach procedures, weather, ADM, and CRM.

Course Objectives:

Instrument flight instructor (CFII) students will learn in-depth knowledge of the material needed for the FAA instrument rating and instrument flight instructor rating knowledge, oral and practical examinations. Additionally CFII students must and be able to develop lesson plans for both instrument and instrument instructor students, conduct ground and in-flight lessons, evaluate the student's comprehension of the material, determine the student's proficiency level and make appropriate recommendations and endorsements. Topics of study include the national airspace system, air traffic control, Human factors, aerodynamics, flight instruments, attitude instrument flying, FAA regulations, meteorology, flight publications, cross-country planning and navigation.

Learning Outcomes:

Upon the completion of this course, student will learn the following material(s) and have the following competencies:

- Exhibit the knowledge, skills, and maneuvers necessary to successfully pass the <u>FAA</u> <u>instrument instructor rating</u> knowledge examination and the practical test on the first attempt. [Bloom's: Application]
- Communicate the required aeronautical knowledge necessary to serve as an <u>instrument</u> <u>flight instructor</u>. [Bloom's: Synthesis]
- Demonstrate a working knowledge of the national airspace system and federal aviation regulations, flight information and communication at an <u>instrument instructor level</u>. [Bloom's: Application]
- Communicate to flight students about attitude instrument flying, the national airspace system and air traffic control, navigation systems, IFR flight, emergency operations, instrument departure, en route and approach procedures, navigation, and basic human factors. [Bloom's: Synthesis]

Required Text:

Instrument Rating Knowledge Test Guide. Jeppesen, Englewood, CO. ISBN: 9780884875406

Federal Aviation Regulations/Aeronautical Information (FAR/AIM) Manual (2013). Federal Aviation Administration. Jeppesen, Englewood, CO. ISBN: 9780884875840.

Federal Aviation Regulations available online: http://ecfr.gpoaccess.gov/cgi/t/text/text-idx?c=ecfr&tpl=/ecfrbrowse/Title14/14tab_02.tpl

Aeronautical Information Manual available online: http://www.faa.gov/air_traffic/publications/atpubs/aim/

Instrument Rating Practical Test Standards for Airplane. Federal Aviation Administration FAA-S-8081-4E with Changes 1, 2, and 3. Available online: http://www.faa.gov/training_testing/testing/test_standards/#pilot/ Flight Instructor Instrument Practical Test Standards for Airplane. Federal Aviation Administration FAA-S-8081-6D with Changes 1, 2, and 3. Available online: http://www.faa.gov/training_testing/testing/test standards/#pilot/

Instrument Flying Handbook. 2012, Federal Aviation Administration, FAA-H 8081-15B. Available online: http://www.faa.gov/regulations_policies/handbooks_manuals/

Instrument Procedures Handbook. 2007, Federal Aviation Administration, FAA-H-8261-1A. Available online: <u>http://www.faa.gov/regulations_policies/handbooks_manuals/</u>

Risk Management Handbook, 2009, Federal Aviation Administration, FAA-H-8083-2. Available online: http://www.faa.gov/regulations_policies/handbooks_manuals/

Grading:

The student will be evaluated in this course on the following criteria:

Course Element	Points	Percentage
Discussion Posts	200	15%
Section Tests (7)	700	54%
Final Examination	400	31%
Total	1300	100%

Note: Points may be lost for late or missing submissions. See Late Assignments for details.

Grade Scale:

100 – 90	A
89 – 80	В
79 – 70	C
69 – 60	D
59 – 0	F

Grading Policy:

Discussion posts will be graded on a student's meaningful contribution to the discussion. A post will be considered acceptable if it provides additional information, clarifies a question, provides different prospective, raises a question, or in some other way contributes to the overall discussion. Simply agreeing with another student's post is not considered acceptable.

The seven weekly tests consist of multiple choice questions similar to the questions on the FAA knowledge examination. Each test includes 50 questions and each question has a value of 2 points.

The comprehensive final exam consists of multiple choice questions similar to the questions on the FAA knowledge examination. The test contains 100 questions and each question has a value of 4 points.

Final Grade of Incomplete Policy:

Note: This is an on-line course. As such an incomplete grade is highly discouraged. The WVU eCampus system will close the course soon after the course end date, making it impossible for the student to have access to further course material such as tests or discussion questions. The submission of any remaining work must be coordinated between the student and the instructor and must be submitted directly to the instructor.

The grade of I (Incomplete) will be given only when the instructor believes that the course work is unavoidably incomplete.

1. Students must complete unfinished work, by the end of the next semester enrolled (Fall, Spring, Summer) for any course in which they have received an incomplete.

2. The student is responsible for contacting the instructor of record to develop a written plan to complete the work.

Participation (Attendance) Policies:

Each week students will log on to the course on the eCampus website and complete the weekly assignment by Wednesday of that week. Each student will post his/her response to the discussion question by Thursday and respond to at least one other post by the end of the week. The additional elements of the discussion questions and responses are designed to help students work through the course material as well as interact with the instructor and other students.

Discussion questions are critical for your grade.

Late Assignments:

This is an interactive on-line course. As such it is critical that students participate weekly with not just reading and test questions but with participation in the discussion questions.

One outcome of the course is to help students develop the work ethic and discipline required in aviation. Timeliness is a characteristic required of all professional pilots. Therefore, each student is expected to submit all work on time.

Nevertheless, extenuating circumstances do arise. Limited exceptions will be made for late participation when individual circumstances make it difficult for the student to meet the weekly demands of the course. These exceptions will be **limited**. Please make every effort to keep up, especially with the discussion questions. Late participation in discussion questions for any reason may result in a grade penalty, specifically the loss the points associated with that week's questions.

Late submission of tests will result in a reduction of 10 points per test.

Inclusivity Statement:
West Virginia University community is committed to creating and fostering a positive learning and working environment based on open communication, mutual respect and inclusion.

If you are a person with a disability and anticipate needing any type of accommodation in order to participate in this class, please advise me and make appropriate arrangement with Disability Services (304-293-6700).

Academic Integrity:

The integrity of the classes offered by any academic institution solidifies the foundation of its mission and cannot be sacrificed to expediency, ignorance, or blatant fraud. Therefore, I will enforce rigorous standards of academic integrity in all aspects and assignments of this course. For the detailed policy of West Virginia University regarding the definitions of acts considered to fall under academic dishonesty and possible ensuing sanctions, please see the Student Conduct Code at

http://studentlife.wvu.edu/office of student conduct/student conduct code. Should you have any questions about possibly improper research citations or references, or any other activity that may be interpreted as an attempt at academic dishonesty, please see me before the assignment is due to discuss the matter.

Assignment Summary:

Week #1

Assignment	Due Date	Specifics
Textbook Readings Instrument Procedures Handbook (IPH) Instrument Flying Handbook (IFH)	Wednesday	IPH Chapter 1 – Airspace IFH Chapter 1 – The National Airspace System, Chapter 2, The Air Traffic Control System
Discussion Questions	Wednesday	Respond to Week #1 discussion question(s).
Discussion Questions	Thursday	Reply to at least one classmate's response to the Week's discussion questions.
Week 1 Test	Saturday	Complete Week 1 Test

Week #2

Assignment	Due Date	Specifics
Textbook Readings Instrument Procedures Handbook (IPH) Instrument Flying Handbook (IFH)	Wednesday	IPH Chapter 2 – Takeoffs and Landings IFH Chapter 3 – Human Factors, Chapter 4 – Aerodynamic Factors
Discussion Questions	Wednesday	Respond to Week #2 discussion question(s).
Discussion Questions	Thursday	Reply to at least one classmate's response to the Week's discussion questions.
Week 2 Test	Saturday	Complete Week 2 Test.

Week #3

Assignment	Due Date	Specifics
Textbook Readings Instrument Procedures Handbook (IPH) Instrument Flying Handbook (IFH)	Wednesday	IPH Chapter 3 – En Route Operations IFH Chapter 5 – Flight Instruments, Chapter 6, Section I - Airplane Attitude Instrument Flying Using Analog Instruments
Discussion Questions	Wednesday	Respond to Week #3 discussion question(s).
Discussion Questions	Thursday	Reply to at least one classmate's response to the Week's discussion questions.
Week 3 Test	Saturday	Complete Week 3 Test.

Week #4

Assignment	Due Date	Specifics
Textbook Readings Instrument Procedures Handbook (IPH) Instrument Flying Handbook (IFH)	Wednesday	IPH Chapter 4 Arrivals IFH Chapter 6, Section I - Airplane Attitude Instrument Flying Using an Electronic Flight Display, Chapter 7, Section I Airplane Basic Flight Maneuvers Using Analog Instruments
Discussion Questions	Wednesday	Respond to Week #4 discussion question(s).
Discussion Questions	Thursday	Reply to at least one classmate's response to the Week's discussion questions.
Week 4 Test	Saturday	Complete Week 4 Test.

Week #5

Assignment	Due Date	Specifics
Textbook Readings Instrument Procedures Handbook (IPH) Instrument Flying Handbook (IFH)	Wednesday	IPH Chapter 5 - Approaches IPF Chapter 7, Section II – Airplane Basic Flight Maneuvers Using an Electronic Flight Display, Chapter 9 Navigation Systems
Discussion Questions	Wednesday	Respond to Week #5 discussion question(s).
Discussion Questions	Thursday	Reply to at least one classmate's response to the Week's discussion questions.
Week 5 Test	Saturday	Complete Week 5 Test.

Week #6

Assignment	Due Date	Specifics
Textbook Readings Instrument Procedures Handbook (IPH) Instrument Flying Handbook (IFH)	Wednesday	IPH Chapter 6 – System Improvement Plans IPF Chapter 10 IFR Flight
Discussion Questions	Wednesday	Respond to Week #6 discussion question(s).
Discussion Questions	Thursday	Reply to at least one classmate's response to the Week's discussion questions.
Week 6 Test	Saturday	Complete Week 6 test.

Week #7: Cross-Country Flight Planning

Assignment	Due Date	Specifics
Textbook Readings Instrument Procedures Handbook (IPH) Instrument Flying Handbook (IFH)	Wednesday	IPH Appendix A, B & C IFH Chapter 11 – Emergency Operations, Appendix A – Clearance Shorthand, Appendix B – Instrument Training Lesson Guide
Discussion Questions	Wednesday	Respond to Week #7 discussion question(s).
Discussion Questions	Thursday	Reply to at least one classmate's response to the Week's discussion questions.
Week 7 Test	Saturday	Complete Week 7 Test.

Week #8

Assignment	Due Date	Specifics	
Textbook Readings Instrument Procedures Handbook (IPH) Instrument Flying Handbook (IFH)	Wednesday	Review	
Discussion Questions	Wednesday	Respond to Week #8 discussion question(s).	
Discussion Questions	Thursday	Reply to at least one classmate's response to the Week's discussion questions.	
Test	Saturday	Comprehensive Final Exam.	

Flight Assignment Summary:

The flight assignment summary will be provided by the flight training provider.

<u>Course:</u> AVIA 306 Advanced Flight Instructor

School/Department:

College of Business, Humanities & Social Sciences, Department of Aviation

Semester: Spring 2015

Course Format and Credit Hours:

1 credit hour eCampus/flight course. Flight students will also complete the associated 1 credit hour AVIA 391 Professional Field Experience course.

Prerequisites:

Enrollment in this course requires the approval of the aviation program director. Students requiring the flight training associated with this course must co-enroll in AVIA 391 Professional Field Experience. Please contact the Aviation Department for more information.

Instructor:

Frank David Robbins, ATP, CFIIMEI, Interim Aviation Program Coordinator, COBE 319, <u>Frank.Robbins@mail.wvu.edu</u>, 304-442-3005, fax 304-442-3810.

Schedule:

This is an 8 week course with both online and flight components. The online component contains 8 weekly modules. Each module begins at 12:01 a.m. on Sunday and ends at 12:00 p.m. the following Saturday. The flight component is conducted at an approved flight training center and requires the student to also enroll in AVIA 391 Professional Field Experience.

Location: Web/On-line

<u>Office</u>: COBE 319

<u>Office Hours</u>: M-F, 8:00 – 4:30

Course Description:

Provides the knowledge and skills necessary for adding an additional aircraft rating to the flight instructor certificate. This course includes the specifications of the aircraft to be added, consideration of flight training differences, safety factors, effective evaluations, and flight instructor responsibilities.

Course Objectives:

To develop the knowledge and skills necessary to conduct flight and ground instruction in advanced aircraft, including multi-engine aircraft. Includes subject areas necessary for multi-engine and flight instructor training, aircraft systems, aircraft performance, practice in lesson plans, in-flight instruction techniques, debriefing, and analysis.

Learning Outcomes:

Upon the completion of this course, student will learn the following material(s) and have the following competencies:

- Create a lesson plan addressing the required aeronautical knowledge necessary to conduct ground and flight instruction in a multi-engine aircraft and instruct primary instructors in teaching techniques applicable to advanced aircraft. [Bloom's: Synthesis]
- Demonstrate the ability to teach advanced and multi-engine aircraft systems, performance, weight and balance, the national airspace system and federal aviation regulations, flight information and communication. [Bloom's: Application]
- Evaluate lesson plans on flight principles, aerodynamics, and human factors necessary when conducting ground and flight instruction in advanced and multi-engine aircraft. [Bloom's: Evaluation]

Required Text:

Federal Aviation Regulations/Aeronautical Information (FAR/AIM) Manual (2013). Federal Aviation Administration. Jeppesen, Englewood, CO. ISBN: 9780884875840. Federal Aviation Regulations available online:

http://ecfr.gpoaccess.gov/cgi/t/text/text-idx?c=ecfr&tpl=/ecfrbrowse/Title14/14tab_02.tpl

Aeronautical Information Manual available online: http://www.faa.gov/air traffic/publications/atpubs/aim/

Commercial Pilot Practical Test Standards for Airplane. Federal Aviation Administration FAA-S-8081-12C with Changes 1, 2, 3, & 4. Available online: http://www.faa.gov/training_testing/testing/test_standards/#pilot/

Airplane Flying Handbook. Federal Aviation Administration, FAA-H-8083-3A. Available online: <u>http://www.faa.gov/regulations_policies/handbooks_manuals/aircraft/airplane_handbook/</u> or <u>http://www.faa.gov/regulations_policies/handbooks_manuals/</u>

Aviation Instructor's handbook, FAA H 8083-9A. Available online: http://www.faa.gov/regulations_policies/handbooks_manuals/

Pilot's Handbook of Aeronautical Knowledge. Federal Aviation Administration, FAA-H-8083-25A. Available online: http://www.faa.gov/regulations_policies/handbooks_manuals/

Grading:

The student will be evaluated in this course on the following criteria:

Course Element	Points	Percentage
Discussion Posts	200	20%
Section Tests (4)	400	40%
Final Examination	400	40%
Total	1000	100%

Note: Points may be lost for late or missing submissions. See Late Assignments for details.

Grade Scale:	
100 – 90	А
89 – 80	В
79 – 70	С
69 – 60	D
59 – 0	F

Grading Policy:

Discussion posts will be graded on a student's meaningful contribution to the discussion. A post will be considered acceptable if it provides additional information, clarifies a question, provides different prospective, raises a question, or in some other way contributes to the overall discussion. Simply agreeing with another student's post is not considered acceptable.

The four section tests consist of multiple choice questions similar to the questions on the FAA knowledge examination. Each test includes 60 questions and each question has a value of 2 points.

The comprehensive final exam consists of multiple choice questions similar to the questions on the FAA knowledge examination. The tests contains 100 questions and each question has a value of 4 points.

Final Grade of Incomplete Policy:

Note: This is an on-line course. As such an incomplete grade is highly discouraged. The WVU eCampus system will close the course soon after the course end date, making it impossible for the student to have access to further course material such as tests or discussion questions. The submission of any remaining work must be coordinated between the student and the instructor and must be submitted directly to the instructor.

The grade of I (Incomplete) will be given only when the instructor believes that the course work is unavoidably incomplete.

1. Students must complete unfinished work, by the end of the next semester enrolled (Fall, Spring, Summer) for any course in which they have received an incomplete.

2. The student is responsible for contacting the instructor of record to develop a written plan to complete the work.

Participation (Attendance) Policies:

Each week students will log on to the course on the eCampus website and complete the weekly assignment by Wednesday of that week. Each student will post his/her response to the discussion question by Thursday and respond to at least one other post by the end of the week. The additional elements of the discussion questions and responses are designed to help students work through the course material as well as interact with the instructor and other students. Discussion questions are critical for your grade.

Late Assignments:

This is an interactive on-line course. As such it is critical that students participate weekly with not just reading and test questions but with participation in the discussion questions.

One outcome of the course is to help students develop the work ethic and discipline required in aviation. Timeliness is a characteristic required of all professional pilots. Therefore, each student is expected to submit all work on time.

Nevertheless, extenuating circumstances do arise. Limited exceptions will be made for late participation when individual circumstances make it difficult for the student to meet the weekly demands of the course. These exceptions will be **limited**. Please make every effort to keep up, especially with the discussion questions. Late participation in discussion questions for any reason may result in a grade penalty, specifically the loss the points associated with that week's questions.

Late submission of tests will result in a reduction of 10 points per test.

Inclusivity Statement:

West Virginia University community is committed to creating and fostering a positive learning and working environment based on open communication, mutual respect and inclusion.

If you are a person with a disability and anticipate needing any type of accommodation in order to participate in this class, please advise me and make appropriate arrangement with Disability Services (304-293-6700).

Academic Integrity:

The integrity of the classes offered by any academic institution solidifies the foundation of its mission and cannot be sacrificed to expediency, ignorance, or blatant fraud. Therefore, I will enforce rigorous standards of academic integrity in all aspects and assignments of this course. For the detailed policy of West Virginia University regarding the definitions of acts considered to fall under academic dishonesty and possible ensuing sanctions, please see the Student Conduct Code at

http://studentlife.wvu.edu/office of student conduct/student conduct code. Should you

have any questions about possibly improper research citations or references, or any other activity that may be interpreted as an attempt at academic dishonesty, please see me before the assignment is due to discuss the matter.

Assignment Summary:

Week #1:

Assignment	Due Date	Specifics
Textbook Readings Pilot's Handbook of Aeronautical Knowledge (PHAK) Airplane Flying Handbook (AFH)	Wednesday	PHAK Chapter 4 – Aerodynamics of Flight AFH Chapter 1 – Introduction to Flight Training
Discussion Questions	Wednesday	Respond to Week #1 discussion question(s).
Discussion Questions	Thursday	Reply to at least one classmate's response to the Week's discussion questions.

Week #2:

Assignment	Due Date	Specifics
Textbook Readings Pilot's Handbook of Aeronautical Knowledge (PHAK) Airplane Flying Handbook (AFH)	Wednesday	PHAK Chapter 6 – Aircraft Systems AFH Chapter 4 – Slow Flight, Stalls, and Spins
Discussion Questions	Wednesday	Respond to Week #2 discussion question(s).
Discussion Questions	Thursday	Reply to at least one classmate's response to the Week's discussion questions.
Section 1 Test	Saturday	Take Section 1 Test

Week #3:

Assignment	Due Date	Specifics
Textbook Readings Pilot's Handbook of Aeronautical Knowledge (PHAK) Airplane Flying Handbook (AFH)	Wednesday	PHAK Review Chapter 8 – Flight Manuals and Other Documents AFH Chapter 5 – Takeoff and Departure Climbs, Chapter 7 – Airport Traffic Patterns
Discussion Questions	Wednesday	Respond to Week #3 discussion question(s).
Discussion Questions	Thursday	Reply to at least one classmate's response to the Week's discussion questions.

Week #4:

Assignment	Due Date	Specifics
Textbook Readings Pilot's Handbook of Aeronautical Knowledge (PHAK) Airplane Flying Handbook (AFH)	Wednesday	PHAK Chapter 9 - Weight and Balance AFH Chapter 8 - Approaches and Landings AFH Chapter 9 - Performance Maneuvers
Discussion Questions	Wednesday	Respond to Week #4 discussion question(s).
Discussion Questions	Thursday	Reply to at least one classmate's response to the Week's discussion questions.
Section 2 Test	Saturday	Take Section 2 Test

Week #5:

Assignment	Due Date	Specifics
Textbook Readings Pilot's Handbook of Aeronautical Knowledge (PHAK) Airplane Flying Handbook (AFH)	Wednesday	PHAK Chapter 10 – Aircraft Performance AFH Chapter 11 – Transition to Complex Airplanes
Discussion Questions	Wednesday	Respond to Week #5 discussion question(s).
Discussion Questions	Thursday	Reply to at least one classmate's response to the Week's discussion questions.

Week #6:

Assignment	Due Date	Specifics
Textbook Readings Pilot's Handbook of Aeronautical Knowledge (PHAK) Airplane Flying Handbook (AFH)	Wednesday	PAHK Chapter 17 – Aeronautical Decision- Making AFH Chapter 12 – Transition to Multi-Engine Airplanes
Discussion Questions	Wednesday	Respond to Week #6 discussion question(s).
Discussion Questions	Thursday	Reply to at least one classmate's response to the Week's discussion questions.
Section 3 Test	Saturday	Take Section 3 Test

Week #7:

Assignment	Due Date	Specifics
Textbook Readings Pilot's Handbook of Aeronautical Knowledge (PHAK) Airplane Flying Handbook (AFH)	Wednesday	AFH Chapter 13 – Transition to Tailwheel Airplanes AFH Chapter 14 – Transition to Turbopropeller Powered Airplanes
Discussion Questions	Wednesday	Respond to Week #7 discussion question(s).
Discussion Questions	Thursday	Reply to at least one classmate's response to the Week's discussion questions.
Section 4 Test	Saturday	Take Section 4 Test

Week #8:

Assignment	Due Date	Specifics
Textbook Readings Pilot's Handbook of Aeronautical Knowledge (PHAK) Airplane Flying Handbook (AFH)	Wednesday	AFH Chapter 15 – Transition to Jet Powered Airplanes AFH Chapter 16 - Emergency Procedures
Discussion Questions	Wednesday	Respond to Week #8 discussion question(s).
Discussion Questions	Thursday	Reply to at least one classmate's response to the Week's discussion questions.
Test	Saturday	Comprehensive Final Exam

Flight Assignment Summary:

The flight assignment summary will be provided by the flight training provider.

<u>Course:</u> AVIA 351 Crew Resource Management

School/Department:

College of Business, Humanities & Social Sciences, Department of Aviation

Semester: Fall 2016

<u>Course Format and Credit Hours</u>: 3 credit hour eCampus online course

<u>Prerequisites</u>: Enrollment in this course requires the approval of the aviation program director.

Instructor:

Frank David Robbins, ATP, CFIIMEI, Interim Aviation Program Coordinator, COBE 319, <u>Frank.Robbins@mail.wvu.edu</u>, 304-442-3005, fax 304-442-3810.

Schedule:

8 week web/online, with weekly sessions. Each session begins at 12:01 a.m. on Sunday and ends at 12:00 a.m. on Saturday.

<u>Location</u>: Web/online

<u>Office</u>: COBE 319

<u>Office Hours</u>: M-F, 8:00 – 4:30

<u>Course Description</u>: A study of human interactions that affect the safety of flight. Coursework emphasizes crew coordination, situational awareness, communication, workload management, decision making, and human error management essential to the safe operation of a professional crew.

Course Objectives:

Students will explore the human factors that affect the efficiency and safety of flight. Coursework emphasizes airline cockpit crew coordination, situational awareness, communication, workload management, decision making, and human error management essential to the professional crew environment. Single Pilot Resource Management (SRM) and Crew Resource Management (CRM) training helps the pilot manage available resources and associated aircraft control and navigation tasks.

Expected Learning Outcomes:

Upon completion of this course the student should:

- Analyze the human element of safety in a technical environment. [Bloom's: Analysis]
- Compare and contrast error prevention theories and techniques in single pilot and crew aircraft operations. [Bloom's: Evaluation]
- Recommend ways in which human error can be recognized in routine and emergency operations. [Bloom's: Evaluation]
- Summarize normally accepted crew coordination practices in multi-crew aircraft operations. [Bloom's: Synthesis]
- Compare and contrast the roles of captain and first officer in airline and general aviation aircraft operations. [Bloom's: Evaluation]

Required Textbook:

FAA AC – 120-51E – Crew Resource Management Training http://rgl.faa.gov/Regulatory_and_Guidance_Library/rgAdvisoryCircular.nsf/0/80038cf51aace5 3686256e24005cbb23/\$FILE/AC120-51e.pdf FAA Risk Management Handbook, FAA-H-8083-2, 2009 http://www.faa.gov/regulations_policies/handbooks_manuals/aviation/risk_management_han dbook/

Royal Aeronautical Society - Crew Resource Management http://www.raes-hfg.com/reports/crm-now.htm

ASARs Article - Managing Resources - CRM, SRM, and MRM http://asrs.arc.nasa.gov/docs/cb/cb_370.pdf

Eyewitness Report – United Flight 232 http://www.airdisaster.com/eyewitness/ua232.shtml

Dailymotion 1989 Souix City crash http://www.dailymotion.com/video/x5yztk_1989-sioux-city-crash_news#.Ua4EDthethk

Disaster – The Unflyable Plane. A History Channel video in three parts: http://www.youtube.com/watch?v=-2JHvMkdNFA

Air Crash Investigations – United 232 Video (44:01 in 6 parts) http://www.youtube.com/watch?v=Wdo3XEYvfRM (Part 1) http://www.youtube.com/watch?v=-A2bZuWRCnE (Part 2) http://www.youtube.com/watch?v=_gPywlymKWM (Part 3) http://www.youtube.com/watch?v=Q6MwGaLsXRQ (Part 4) http://www.youtube.com/watch?v=a_Nb_ynwxKA (Part 5) http://www.youtube.com/watch?v=4znGqoM9mHg (Part 6)

Grading:	
Activity	Points
Weekly test questions (50 points per week)	400
Weekly discussion questions (50 points each)	400
Final examination	400
Research papers, 200 points each	400
Total Points	1600

Grade Assignment:

Points Earned	Grade
1441-1600	А
1281-1440	В
1121-1280	С
961-1120	D
960 & below	F

Course Policies:

This course moves from traditional flight training to single pilot resource management (SRM), crew resource management (CRM), and professionalism. The "text" for the course is drawn from FAA publications, international publications, and a number of video presentations, primarily concerning the crash of United flight 232.

Chapter tests are open book. There is no time limit on these tests.

Discussion questions are critical for your grade. Your personal experiences and options are appreciates, however referencing outside materials and including the references will produce higher grades on the discussion questions.

The final examination is a timed test. Technically, it is open book, but you will only be allowed one minute per question. Plan accordingly!

Late Assignments:

This is an interactive online course. As such it is critical that students participate weekly with not just reading and test questions but with participation in the discussion questions. Never the less, I understand the nature of aviation and will grant limited exceptions for late

participation when individual circumstances make it difficult for the student to meet the weekly demands of the course. These exceptions will be **limited**. Please make every effort to keep up, especially with the discussion questions. Late participation for any reason may result in a grade penalty.

Incomplete Grades:

WVU Tech and the Department discourages grades of *Incomplete*, however, understands that there are certain circumstances under which a grade of *Incomplete* is appropriate. Grades of *Incomplete* are given at the discretion of the instructor, but normally are granted only if a student has acceptably completed 80% of the coursework prior to the last day of the class. The student must request a grade of *Incomplete* prior to the last day of the course. Such a request should include a list of missing assignments and a date for submission of missing assignments no later than sixty (60) days from the last date of the course. If approved, the student and instructor will complete a Statement of Complete the course requirements within the time allowed causes the grade of *Incomplete* "I" to default to an "F."

Inclusivity Statement:

West Virginia University is committed to social justice. I concur with that commitment and expect to maintain a positive learning environment based upon open communication, mutual respect, and non-discrimination. Our University does not discriminate on the basis of race, sex, age, disability, veterans' status, religion, sexual orientation, color or national origin. Any suggestions as to how to further such a positive and open environment in this class will be appreciated and given serious consideration.

If you are a person with a disability and anticipate needing any type of accommodation in order to participate in this class, please advise me and make appropriate arrangements with the Office of Disability Services (304.293.6700).

Academic Integrity:

The integrity of the classes offered by any academic institution solidifies the foundation of its mission and cannot be sacrificed to expediency, ignorance, or blatant fraud. Therefore, I will enforce rigorous standards of academic integrity in all aspects and assignments of this course. For the detailed policy of West Virginia University regarding the definitions of acts considered to fall under academic dishonesty and possible ensuing sanctions, please see the Student Conduct Code at

http://studentlife.wvu.edu/office_of_student_conduct/student_conduct_code. Should you have any questions about possibly improper research citations or references, or any other activity that may be interpreted as an attempt at academic dishonesty, please see me before the assignment is due to discuss the matter.

Weekly Class Schedules-

Weeks 1: Risk Management

Textbook Readings FAA Risk Management Handbook	All Week	Chapter 1 – Defining Elements of Risk Management Chapter 2 – Human Behavior Chapter 3 – Identifying and Mitigating Risk
Discussion Questions	Wednesday	Respond to Week 1 discussion question
Discussion Questions	Saturday	Reply to at least one classmate's response to each discussion question
Quiz	Saturday	Complete the quiz for week 1

Week 2: Risk Management

Textbook Readings FAA Risk Management Handbook	All Week	Chapter 4 – Assessing Risk Chapter 5 – Aeronautical Decision-Making
Discussion Questions	Wednesday	Respond to Week 2 discussion question
Discussion Questions	Saturday	Reply to at least one classmate's response to each discussion question
Quiz	Saturday	Complete the quiz for week 2

Weeks 3: Aeronautical Decision Making

Textbook Readings FAA Risk Management Handbook	All Week	Chapter 5 – Aeronautical Decision-Making
Discussion Questions	Wednesday	Respond to Week 3 discussion question
Discussion Questions	Saturday	Reply to at least one classmate's response to each discussion question
Quiz	Saturday	Complete the quiz for week 3

Weeks 4: Single Pilot F	Resource Management
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Readings		
FAA Risk Management Handbook	All Week	Risk Management Handbook Chapter 6 – Single-Pilot
ASARs Article – Managing Resources – CRM, SRM, and MRM		Resource Management ASARS Article
Discussion Questions	Wednesday	Respond to Week 5 discussion question(s)
Discussion Questions	Saturday	Reply to at least one classmate ^w s response to each discussion question
Quiz	Saturday	Complete the quiz for week 4

Weeks 5: Crew Resource Management

<i>Textbook Readings</i> FAA AC – 120-51E – Crew Resource Management		Read entire Advisory Circular
Training	All Week	Read Royal Aeronautical
Royal Aeronautical Society - Crew Resource Management		Management document.
Discussion Questions	Wednesday	Respond to Week 5 discussion question(s)
Discussion Questions	Saturday	Reply to at least one classmate"s response to each discussion
Quiz	Saturday	Complete the quiz for week 5

Weeks 6: Automation

Textbook Readings		
FAA Risk Management	All Week	Chapter 7 – Automation
Handbook		

Discussion Questions	Wednesday	Respond to Week 6 discussion question(s)
Discussion Questions	Saturday	Reply to at least one classmate ^w s response to each discussion question
Quiz	Saturday	Complete the quiz for week 6

Weeks 7: Risk Management Training

Readings FAA Risk Management Handbook	All Week	Chapter 8 – Risk Management Training
Discussion Questions	Thursday	Respond to Week 7 discussion question(s)
Discussion Questions	Saturday	Reply to at least one classmate's response to each discussion question
CRM Research Paper	Saturday	Submit a 5 page research paper on CRM

Weeks 8: Professionalism

Readings Eyewitness Report – United Flight 232 <u>http://www.airdisaster.com/ey</u> <u>ewitness/ua232.shtml</u>	Wednesday	Read the Eyewitness Report Article
Discussion Questions	Thursday	Respond to Week 8 discussion question(s)
Discussion Questions	Saturday	Reply to at least one classmate ^s s response to each discussion question
Video Assignment	Wednesday	Dailymotion 1989 Souix City crash Disaster – The Unflyable Plane. A History Channel video in

		three parts
		Air Crash Investigations –
		United 232 Video
Drafassian gliana Dasa angh Danan	Saturday	Complete a 2- 4
Projessionalism Research Paper		Professionalism research paper
Final Exam	Saturday	Complete the 40 question
ΓΙΙΙΔΙ ΕΧΟΙΙΙ	Saturuay	comprehensive final exam.

<u>Course:</u> AVIA 352 ATP/Turbine Aircraft Operations

School/Department:

College of Business, Humanities & Social Sciences, Department of Aviation

Semester:

Fall 2016

Course Format and Credit Hours:

2 credit hour eCampus/flight course. Flight students will also complete a 1 credit hour AVIA 491 Professional Field Experience course.

Prerequisites:

Enrollment in this course requires the approval of the aviation program director. Students requiring the flight training associated with this course must co-enroll in AVIA 391 Professional Field Experience. Please contact the Aviation Department for more information.

Instructor:

Frank David Robbins, ATP, CFIIMEI, Interim Aviation Program Coordinator, COBE 319, <u>Frank.Robbins@mail.wvu.edu</u>, 304-442-3005, fax 304-442-3810.

Schedule:

This is an 8 week course with both online and flight components. The online component contains 8 weekly modules. Each module begins at 12:01 a.m. on Sunday and ends at 12:00 p.m. the following Saturday. The flight component is conducted at an approved flight training center and requires the student to also enroll in AVIA 391 Professional Field Experience.

Location: Web/online and at the flight training center

Office: COBE 319

<u>Office Hours</u>: M-F, 8:00 – 4:30

Course Description:

This course includes an in-depth study of regional jet systems, FMS navigation, airline-level crew resource management and airline standard operating procedures. The topics covered apply to many regional jet aircraft and some turbo prop aircraft.

Course Objectives:

This course addresses both aircraft and human systems in the backdrop of the regional airline cockpit. This includes in-depth study of mechanical and electronic aircraft systems along with detailed study and practice of the routine, abnormal, and emergency actions of the crewmembers during simulated airline operations.

Learning Outcomes:

Upon the completion of this course, student will learn the following material(s) and have the following competencies:

- Explain how advanced turbine aircraft can be operated normally. [Bloom's: Application]
- Critique methods of overcoming real world challenges such as inoperative equipment, hazardous weather, and complex navigation. [Bloom's: Evaluation]
- Explain aircraft system architecture and redundancy in modern turbine aircraft. [Bloom's: Application]
- Appraise the use of hazard avoidance systems found in modern turbine aircraft including weather radar, traffic collision and avoidance systems (TCAS) and ground proximity warning systems (GPWS). [Bloom's: Evaluation]
- Explain major aircraft systems including flight controls, pressurization, fuel management, ice protection, landing gear, annunciator, warning systems, fire protection, distribution of power, and the specific uses of electrical, hydraulic, and pneumatic systems. [Bloom's: Synthesis]
- Demonstrate proficiency to airline transport pilot standards in the applicable aircraft or training device. [Bloom's: Application]

Required Text:

The Turbine Pilot's Flight Manual (2012), Third Edition. Gregory N. Brown, Mark J. Holt. Aviation Supplies and Academics. ISBN: 1-56027-946-4.

Federal Aviation Regulations available online: http://ecfr.gpoaccess.gov/cgi/t/text/text-idx?c=ecfr&tpl=/ecfrbrowse/Title14/14tab_02.tpl

Aeronautical Information Manual available online: http://www.faa.gov/air_traffic/publications/atpubs/aim/

Airplane Flying Handbook. Federal Aviation Administration, FAA-H-8083-3A. Available online: <u>http://www.faa.gov/regulations_policies/handbooks_manuals/aircraft/airplane_handbook/</u>

Pilot's Handbook of Aeronautical Knowledge. Federal Aviation Administration, FAA-H-8083-25A. Available online: http://www.faa.gov/regulations_policies/handbooks_manuals/

Grading:

The student will be evaluated in this course on the following criteria:

Course Element	Points	Percentage
Discussion Posts	200	20%
Section Tests (8)	400	40%
Final Examination	400	40%
Total	1000	100%

Note: Points may be lost for late or missing submissions. See <u>Late Assignments</u> for details.

Grade Scale:

100 – 90	Α
89 – 80	В
79 – 70	С
69 – 60	D
59 – 0	F

Grading Policy:

Discussion posts will be graded on a student's meaningful contribution to the discussion. A post will be considered acceptable if it provides additional information, clarifies a question, provides different prospective, raises a question, or in some other way contributes to the overall discussion. Simply agreeing with another student's post is not considered acceptable.

The eight section tests consist of multiple choice questions similar to the questions on an FAA knowledge examination. Each test includes 25 questions and each question has a value of 2 points.

The comprehensive final exam consists of multiple choice questions similar to the section tests. The test contains 50 questions and each question has a value of 4 points.

Final Grade of Incomplete Policy:

Note: This is an on-line course. As such an incomplete grade is highly discouraged. The WVU eCampus system will close the course soon after the course end date, making it impossible for the student to have access to further course material such as tests or discussion questions. The submission of any remaining work must be coordinated between the student and the instructor and must be submitted directly to the instructor.

The grade of I (Incomplete) will be given only when the instructor believes that the course work is unavoidably incomplete.

1. Students must complete unfinished work, by the end of the next semester enrolled (Fall, Spring, Summer) for any course in which they have received an incomplete.

2. The student is responsible for contacting the instructor of record to develop a written plan to complete the work.

Participation (Attendance) Policies:

Each week students will log on to the course on the eCampus website and complete the weekly assignment by Wednesday of that week. Each student will post his/her response to the discussion question by Thursday and respond to at least one other post by the end of the week. The additional elements of the discussion questions and responses are designed to help students work through the course material as well as interact with the instructor and other students. Students are encouraged to post not only answers to specific questions, but to delve into the personal aspects of aviation, such as why you wish to fly, your career goals, and your greatest fears about flying.

This course is foundational to all other aviation theory courses. It covers a very broad range of topics and everything in the course is important information. Students should read the Jeppesen material first. The FAA publications are the ultimate authority for this course, but somewhat more difficult to understand. By completing each eCampus module first and then reading the related FAA documents, the material will be easier to understand and better retained.

Discussion questions are critical for your grade.

Late Assignments:

This is an interactive on-line course. As such it is critical that students participate weekly with not just reading and test questions but with participation in the discussion questions.

One outcome of the course is to help students develop the work ethic and discipline required in aviation. Timeliness is a characteristic required of all professional pilots. Therefore, each student is expected to submit all work on time.

Nevertheless, extenuating circumstances do arise. Limited exceptions will be made for late participation when individual circumstances make it difficult for the student to meet the weekly demands of the course. These exceptions will be **limited**. Please make every effort to keep up, especially with the discussion questions. Late participation in discussion questions for any reason may result in a grade penalty, specifically the loss the points associated with that week's questions.

Late submission of tests will result in a reduction of 10 points per test.

Inclusivity Statement:

West Virginia University community is committed to creating and fostering a positive learning and working environment based on open communication, mutual respect and inclusion.

If you are a person with a disability and anticipate needing any type of accommodation in order to participate in this class, please advise me and make appropriate arrangement with Disability Services (304-293-6700).

Academic Integrity:

The integrity of the classes offered by any academic institution solidifies the foundation of its mission and cannot be sacrificed to expediency, ignorance, or blatant fraud. Therefore, I will enforce rigorous standards of academic integrity in all aspects and assignments of this course. For the detailed policy of West Virginia University regarding the definitions of acts considered to fall under academic dishonesty and possible ensuing sanctions, please see the Student Conduct Code at

<u>http://studentlife.wvu.edu/office of student conduct/student conduct code</u>. Should you have any questions about possibly improper research citations or references, or any other activity that may be interpreted as an attempt at academic dishonesty, please see me before the assignment is due to discuss the matter.

Assignment Summary:

Assignment	Due Date	Specifics
Textbook Readings Turbine Pilot's Flight Manual (TPFM)	Wednesday	Chapter 1 Introduction Chapter 2 General Preperations Chapter 3 Turbine Engines and Propeller Systems
Discussion Questions	Wednesday	Respond to Week #1 discussion question(s).
Discussion Questions	Thursday	Reply to at least one classmate's response to the Week's discussion questions.
Test 1	Saturday	Complete test 1.

Section #2

Assignment	Due Date	Specifics
Textbook Readings Turbine Pilot's Flight Manual (TPFM)	Wednesday	TPFM Chapter 4 Turbine Aircraft Power Systems
Discussion Questions	Wednesday	Respond to Week #2 discussion question(s).
Discussion Questions	Thursday	Reply to at least one classmate's response to the Week's discussion questions.
Test 2	Saturday	Complete test 2.

Section #3

Assignment	Due Date	Specifics
Textbook Readings Turbine Pilot's Flight Manual (TPFM)	Wednesday	Chapter 5 Major Aircraft Systems
Discussion Questions	Wednesday	Respond to Week #3 discussion question(s).
Discussion Questions	Thursday	Reply to at least one classmate's response to the Week's discussion questions.
Test 3	Saturday	Complete test 3.

Section #4

Assignment	Due Date	Specifics
Textbook Readings Turbine Pilot's Flight Manual (TPFM)	Wednesday	TPFM Chapter 6 Dedicated Aircraft Systems
Discussion Questions	Wednesday	Respond to Week #4 discussion question(s).
Discussion Questions	Thursday	Reply to at least one classmate's response to the Week's discussion questions.
Test 4	Saturday	Complete test 4.

Section #5

Assignment	Due Date	Specifics
Textbook Readings Turbine Pilot's Flight Manual (TPFM)	Wednesday	Chapter 7 Limitations Chapter 9 Normal Procedures Chapter 10 Emergency and Abnormal Procedures
Discussion Questions	Wednesday	Respond to Week #5 discussion question(s).
Discussion Questions	Thursday	Reply to at least one classmate's response to the Week's discussion questions.
Federal Aviation Regulations	Saturday	Review previous FAR assignments.
Test 5	Saturday	Complete test 5

Section #6

Assignment	Due Date	Specifics
Textbook Readings Turbine Pilot's Flight Manual (TPFM)	Wednesday	Chapter 11 Weight and Balance Chapter 12 Airplane handling, Service and Maintenance
Discussion Questions	Wednesday	Respond to Week #6 discussion question(s).
Discussion Questions	Thursday	Reply to at least one classmate's response to the Week's discussion questions.
Test 6	Saturday	Complete test 6.

Section #7

Assignment	Due Date	Specifics
Textbook Readings Turbine Pilot's Flight Manual (TPFM)	Wednesday	Chapter 13 Navigation, Communication, and Electronic Flight Control Systems Chapter 14 Hazard Avoidance Systems
Discussion Questions	Wednesday	Respond to Week #7 discussion question(s).
Discussion Questions	Thursday	Reply to at least one classmate's response to the Week's discussion questions.
Test 7	Saturday	Complete test 7.

Section #8

Assignment	Due Date	Specifics
Textbook Readings Turbine Pilot's Flight Manual (TPFM)	Wednesday	Chapter 15 Operational Information Chapter 16 Weather Considerations for Turbine Pilots
Discussion Questions	Wednesday	Respond to Week #8 discussion question(s).
Discussion Questions	Thursday	Reply to at least one classmate's response to the Week's discussion questions.
Test 8	Saturday	Complete test 8.
Comprehensive Final Exam	Saturday	Complete comprehensive final exam.

Flight Assignment Summary:

The flight assignment summary will be provided by the flight training provider.

<u>Course</u>: AVIA 380 Aviation Weather

<u>School/Department</u>: College of Business, Humanities, & Social Sciences

<u>Semester</u>: Fall 2016

<u>Course Format & Credit Hours</u>: 3 credit hour eCampus online course.

Prerequisites:

Enrollment in this course requires the approval of the aviation program director or the Dean of BHSS.

<u>Instructor</u>: TBD

Schedule:

This is an 8 week web/online course with weekly sessions. Each Session begins at 12:01 a.m. on Sunday and ends at 12:00 a.m. on Saturday.

<u>Location</u>: Web/online

<u>Office Hours</u>: Monday – Friday, 8:00 – 4:30 Eastern time.

Course Description:

A study of weather, especially as it relates to aviation, with emphasis on weather concepts, reporting systems, forecasting systems, hazards, weather and flight planning, weather in relation to aircraft performance, and weather reporting hardware and software.

Course Objectives:

The objectives of Aviation Weather are to teach weather basics, aviation weather hazards, and how to apply that knowledge in order to increase the safety of flight operations.

Expected Learning Outcomes:

After completing this course the student will be able to:

• Explain the complex interactions of weather systems, including atmospheric composition, energy transfer, pressure and density, vertical stability, circulations, and weather hazards to aviation. [Bloom's: Evaluation]

- Correlate knowledge of atmospheric conditions with weather hazards and aviation weather information resources. [Bloom's: Analysis]
- Choose aviation weather resources such as weather reports, forecasts, and other relevant data and to inform comprehensive flight planning decisions. [Bloom's: Application]

Required Text:

Lester, Peter F., *Aviation Weather*, Jeppesen, 2007. ISBN-13: 978-0-88487-594-9 Lester, Peter F., *Aviation Weather Laboratory Manual*, Jeppesen, 2007, ISBN-13: 978-0-88487-447-8

Grading:

The student will be evaluated on the following criteria:

Course Element	Points	Percentage
Discussion Posts	200	20%
Lab Manual Assignments	200	20%
4 Tests @ 100 points each	400	40%
Project	200	20%
Grade Assignment:		
100-90	A	
89-80	В	
79-70	С	
69-60	D	
59-0	F	

Grading Policy:

Discussion posts will be graded on a student's meaningful contribution to the discussion. A post will be considered acceptable if it provides additional information, clarifies a question, provides a different perspective, raises a question, or in some other way contributes to the overall discussion. Simply agreeing with another student's post is not considered acceptable. Students who consistently delay posts until the rest of the class has posted will not receive full credit. Any and all late/make-up work will be accepted only at the discretion of the instructor.

Project:

Complete Exercise 17 Tasks 17-1 through 17-10. This is progressive project and students are expected to review the project weekly and make contributions as their knowledge of the applicable subjects grows. All questions should be answered in a through and comprehensive manner. It is expected students will devote 1-3 hours per week to this project.

Attendance Policy:

Each week students should log on to the course on the eCampus website and complete the weekly assignment by Wednesday of that week. Each student will post his/her response to the discussion question by Thursday and respond to at least two other posts by the end of the week. The additional elements of the discussion questions and responses are designed to help students work through the course material as well as interact with the instructor and other students.

Inclusivity Statement:

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If you are a person with a disability and anticipate needing any type of accommodation in order to participate in this class, please advise me and make appropriate arrangements with the Office of Accessibility Services (293-6700). For more information on West Virginia University's Diversity, Equity, and Inclusion initiatives, please see http://diversity.wvu.edu."

Academic Integrity Statement:

The integrity of the classes offered by any academic institution solidifies the foundation of its mission and cannot be sacrificed to expediency, ignorance, or blatant fraud. Therefore, I will enforce rigorous standards of academic integrity in all aspects and assignments of this course. For the detailed policy of West Virginia University regarding the definitions of acts considered to fall under academic dishonesty and possible ensuing sanctions, please see the Student Conduct Code http://studentlife.wvu.edu/office_of_student_conduct/student_conduct_code. Should you have any questions about possibly improper research citations or references, or any other activity that may be interpreted as an attempt at academic dishonesty, please see me before the assignment is due to discuss the matter.

Assignment Summary:

<u>Week 1:</u>	Read textbook chapters 1 & 2 by Wednesday.
	Respond to Week 1 discussion questions by Wednesday.
	Respond to at least one classmate's discussion post by Friday.
	Complete Lab Manual Exercise 1 Task 1-5.
	Complete Lab Manual Exercise 2 Task 2-3.
	Contribute to Project in Exercise 17 as applicable.
Week 2:	Read textbook chapters 3 & 4 by Wednesday.
	Respond to Week 2 discussion questions by Wednesday.
	Respond to at least one classmate's discussion post by Friday.
	Complete Lab Manual Exercise 3 Task 3-5.
	Complete Lab Manual Exercise 4 Task 4-3.
	Complete Test 1. Contribute to Project in Exercise 17 as applicable
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Week 3:	Read textbook chapters 5 & 6 by Wednesday. Respond to Week 3 discussion questions by Wednesday.
	Respond to at least one classmate's discussion post by Friday.
	Complete Lab Manual Exercise 5 Task 5-4.
	Complete Lab Manual Exercise 6 Task 6-3. Contribute to Project in Exercise 17 as applicable.
Week 4:	Read textbook chapters 7 & 8 by Wednesday.
	Respond to Week 4 discussion questions by Wednesday.
	Respond to at least one classmate's discussion post by Friday.
	Complete Lab Manual Exercise 7 Task 7-5.
	Complete Lab Manual Exercise 8 Task 8-3.
	Complete Test 2.
	Contribute to Project in Exercise 17 as applicable.
Week 5:	Read textbook chapters 9 & 10 by Wednesday.
	Respond to Week 5 discussion questions by Wednesday.
	Respond to at least one classmate's discussion post by Friday.
	Complete Lab Manual Exercise 9 Task 9-1.
	Complete Lab Manual Exercise 10 Task 10-3.
	Contribute to Project in Exercise 17 as applicable.
Week 6:	Read textbook chapters 11 & 12 by Wednesday.
	Respond to Week 6 discussion questions by Wednesday.
	Respond to at least one classmate's discussion post by Friday.
	Complete Lab Manual Exercise 11 Task 11-4.
	Complete Lab Manual Exercise 12 Task 12-2.
	Complete Test 3.
	Contribute to Project in Exercise 17 as applicable.
Week 7:	Read textbook chapters 13 & 14 by Wednesday.
	Respond to Week 7 discussion questions by Wednesday.
	Respond to at least one classmate's discussion post by Friday.
	Complete Lab Manual Exercise 13 Task 13-2.
	Complete Lab Manual Exercise 14 Task 14-2.

Contribute to Project in Exercise 17 as applicable.

Week 8:Read textbook chapters 15 & 16 by Wednesday.Respond to Week 8 discussion questions by Wednesday.Respond to at least one classmate's discussion post by Friday.Complete Lab Manual Exercise 15 Task 15-1.Complete Lab Manual Exercise 16 Task 16-1.Complete Test 4.Complete Project in Exercise 17.

<u>Course</u>: AVIA 382 Aerodynamics and Aircraft Performance

<u>School/Department</u> College of Business, Humanities, & Social Sciences

<u>Semester</u>: Fall 2016

<u>Course Format & Credit Hours</u>: 3 credit hour eCampus online course

Prerequisites:

Enrollment in this course requires the approval of the aviation program director or the Dean of BHSS.

<u>Instructor</u>: TBD

Schedule:

This is an 8 week web/online course with weekly sessions. Each Session begins at 12:01 a.m. on Sunday and ends at 12:00 a.m. on Saturday.

<u>Location</u>: Web/online

<u>Office Hours</u>: Monday – Friday, 8:00 – 4:30 Eastern time.

Course Description:

A study of the fundamental principles of aerodynamics and aircraft performance. Includes terminology, the four forces of flight, aerodynamic stall and its relation to angle of attack and airspeed, stability and control, weight and balance, and flight at slow, transonic, and supersonic speeds. Performance topics include propeller and turbine performance, operation at high altitudes, and operation in extreme environmental conditions.

Course Objectives:

The objectives of Aerodynamics and Aircraft Performance are to develop knowledge and working understanding of the elements of aerodynamics and their practical application to performance issues in flight operations.

Expected Learning Outcomes:

After completing this course the student will be able to:

- Research aerodynamics and aircraft performance, including wing and airfoil forces, planform effects and airplane drag, airplane performance, high speed aerodynamics, stability and control, and operating limitations. [Bloom's: Analysis]
- Demonstrate knowledge of Bernoulli's Principle, airfoil terminology, stall patterns, and the V-G diagram. [Bloom's: Application]
- Tell why knowledge of aerodynamics and aircraft performance is important by summarizing the appropriate use of angle of attack, region of reverse command, glide angle and lift drag ratio, and the effects of ice and frost on flight operations. [Bloom's: Evaluation]

Required Text:

Hurt, H. H. Jr., *Aerodynamics for Naval Aviators*, NAVAIR 00-80T-80, 1965. Available through Aviation Supplies & Academics, Inc. ISBN: 978-1-61954-017-1.

Grading:

The student will be evaluated on the following criteria:

Course Element	Points	Percentage
Discussion Posts	200	20%
Assignments	200	20%
4 Tests @ 100 points each	400	40%
Project	200	20%
Grade Assignment:		
100-90	A	
89-80	В	
79-70	С	
69-60	D	
59-0	F	

Grading Policy:

Discussion posts will be graded on a student's meaningful contribution to the discussion. A post will be considered acceptable if it provides additional information, clarifies a question, provides a different perspective, raises a question, or in some other way contributes to the overall discussion. Simply agreeing with another student's post is not considered acceptable. Students who consistently delay posts until the rest of the class has posted will not receive full credit. Any and all late/make-up work will be accepted only at the discretion of the instructor.

Attendance Policy:

Each week students should log on to the course on the eCampus website and complete the weekly assignment by Wednesday of that week. Each student will post his/her response to the discussion question by Thursday and respond to at least two other posts by the end of the

week. The additional elements of the discussion questions and responses are designed to help students work through the course material as well as interact with the instructor and other students.

Inclusivity Statement:

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Assignment Summary:

<u>Week 1:</u>	Read textbook Chapter 1 pages 1-59 by Wednesday.
	Respond to Week 1 discussion questions by Wednesday.
	Respond to at least one classmate's discussion post by Friday.
	Complete assignment 1.

- Week 2:Read textbook Chapter 1 pages 60 92 by Wednesday.
Respond to Week 2 discussion questions by Wednesday.
Respond to at least one classmate's discussion post by Friday.
Complete assignment 2.
Complete Test 1.
- Week 3:Read textbook Chapter 2 by Wednesday.Respond to Week 3 discussion questions by Wednesday.Respond to at least one classmate's discussion post by Friday.Complete assignment 3.

- Week 4:Read textbook Chapter 3 by Wednesday.Respond to Week 4 discussion questions by Wednesday.Respond to at least one classmate's discussion post by Friday.Complete assignment 4.Complete Test 2.
- Week 5:Read textbook Chapter 4 by Wednesday.Respond to Week 5 discussion questions by Wednesday.Respond to at least one classmate's discussion post by Friday.Complete assignment 5.
- Week 6:Read textbook Chapter 5 by Wednesday.Respond to Week 6 discussion questions by Wednesday.Respond to at least one classmate's discussion post by Friday.Complete assignment 6.Complete Test 3.
- Week 7:Read textbook Chapter 6 by Wednesday.Respond to Week 7 discussion questions by Wednesday.Respond to at least one classmate's discussion post by Friday.Complete assignment 7.
- Week 8:Review all chapters for final exam.Respond to Week 8 discussion questions by Wednesday.Respond to at least one classmate's discussion post by Friday.Complete assignment 8.Complete Test 4.

<u>Course</u>: AVIA 383 Aircraft Systems

<u>School/Department</u>: College of Business, Humanities, & Social Sciences

<u>Semester</u>: Summer 2015

<u>Course Format & Credit Hours</u>: 3 credit hour eCampus online course.

Prerequisites:

Enrollment in this course requires the approval of the aviation program director or the Dean of BHSS.

<u>Instructor</u>: TBD

Schedule:

This is an 8 week web/online course with weekly sessions. Each Session begins at 12:01 a.m. on Sunday and ends at 12:00 a.m. on Saturday.

<u>Location</u>: Web/online

<u>Office Hours</u>: Monday – Friday, 8:00 – 4:30 Eastern time.

Course Description:

A detailed study of basic and advanced aircraft systems, including piston and turbine powerplants, electrical, hydraulic, fuel, lubrication, pneumatic, ignition, pressurization, landing gear, environmental, fire detection/extinguishing, flight control, and brake systems.

Course Objectives:

The objectives of Aircraft Systems are to teach basic and advanced aircraft systems so that after the completion of the course students possess a working knowledge of common systems found in general aviation single and twin-engine aircraft, general aviation turbine powered aircraft, and regional airline aircraft.

Expected Learning Outcomes:

After completing this course the student will be able to:

• Categorize aircraft construction and aircraft engine types. [Bloom's: Analysis]

- Compare and contrast the theory of reciprocating and turbine engine operation. [Bloom's: Evaluation]
- Explain common power plant systems such as lubrication, cooling, governing, fuel, and induction systems. [Bloom's: Synthesis]
- Critique electrical principles and components as they apply to aircraft systems. [Bloom's: Evaluation]
- Illustrate aircraft hydraulic systems, including hydraulic flows, hydraulic landing gear operation, and brake systems. [Bloom's: Application]
- Describe the principles and operation of aircraft instrument systems, including pitotstatic systems, gyroscopic systems, and EFIS and EICAS systems. [Bloom's: Comprehension]

Required Text:

De Remer, Dale, Aircraft Systems for Pilots, Jeppesen, 2012. ISBN-13: 978-0-88487-214-6

Grading:

The student will be evaluated on the following criteria:

Course Element	Points	Percentage
Discussion Posts	200	20%
Study Questions	400	40%
4 Tests @ 100 points each	400	40%
Grade Assignment:		
100-90	А	
89-80	В	
79-70	С	
69-60	D	

F

Grading Policy:

59-0

Discussion posts will be graded on a student's meaningful contribution to the discussion. A post will be considered acceptable if it provides additional information, clarifies a question, provides a different perspective, raises a question, or in some other way contributes to the overall discussion. Simply agreeing with another student's post is not considered acceptable. Students who consistently delay posts until the rest of the class has posted will not receive full credit. Any and all late/make-up work will be accepted only at the discretion of the instructor.

Attendance Policy:

Each week students should log on to the course on the eCampus website and complete the weekly assignment by Wednesday of that week. Each student will post his/her response to the discussion question by Thursday and respond to at least two other posts by the end of the

week. The additional elements of the discussion questions and responses are designed to help students work through the course material as well as interact with the instructor and other students.

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Assignments:

Week 1:	Read textbook chapters 1, 2 & 3 by Wednesday.
	Respond to Week 1 discussion questions by Wednesday.
	Respond to at least one classmate's discussion post by Friday.
	Complete the chapter 1 Study Questions 4, 5, 8, 9, 10
	Complete the chapter 2 Study Questions 1, 2, 7, 8, 10.
	Complete the chapter 2 Study Questions 1, 2, 3, 8, 9.
Week 2:	Read textbook chapters 4 & 5 by Wednesday.
	Respond to Week 2 discussion questions by Wednesday.
	Respond to at least one classmate's discussion post by Friday.
	Complete chapter 4 Study Questions 1, 4, 7, 8, 12.
	Complete chapter 5 Study Questions 4, 5, 10, 13, 16.
	Complete Test 1.
Week 3:	Read textbook chapters 6 & 7 by Wednesday.

Respond to Week 3 discussion questions by Wednesday.

Respond to at least one classmate's discussion post by Friday. Complete chapter 6 Study Questions 1, 5, 9, 15, 17. Complete chapter 7 Study Questions 1, 4, 5, 6, 8.

- Week 4:Read textbook chapters 8 & 9 by Wednesday.Respond to Week 4 discussion questions by Wednesday.Respond to at least one classmate's discussion post by Friday.Complete chapter 8 Study Questions 1, 2, 3, 4, 6.Complete chapter 9 Study Questions 6, 8, 9, 12, 14.Complete Test 2.Contribute to Project in Exercise 17 as applicable.
- Week 5:Read textbook chapters 10 & 11 by Wednesday.Respond to Week 5 discussion questions by Wednesday.Respond to at least one classmate's discussion post by Friday.Complete chapter 10 Study Questions 6, 7, 8, 9, 10.Complete chapter 11 Study Questions 1, 2, 4, 7, 9.
- Week 6:Read textbook chapters 12 & 13 by Wednesday.
Respond to Week 6 discussion questions by Wednesday.
Respond to at least one classmate's discussion post by Friday.
Complete chapter 12 Study Questions 5, 6, 7, 18, 19.
Complete chapter 13 Study Questions 1, 7, 9, 12, 16.
Complete Test 3.
- Week 7:Read textbook chapters 14 & 15 by Wednesday.Respond to Week 7 discussion questions by Wednesday.Respond to at least one classmate's discussion post by Friday.Complete chapter 14 Study Questions 1, 4, 5, 6, 7.Complete chapter 15 Study Questions 4, 7, 16, 17, 22.
- Week 8:Read textbook chapters 16 & 17 by Wednesday.Respond to Week 8 discussion questions by Wednesday.Respond to at least one classmate's discussion post by Friday.Complete chapter 16 Study Question 1.Complete chapter 17 Study Questions 1, 4, 11, 15.Complete Test 4.

<u>Course</u>: AVIA 385 Air Traffic Control and Airspace

<u>School/Department</u>: College of Business, Humanities, & Social Sciences

<u>Semester</u>:

Spring 2016

<u>Course Format & Credit Hours</u>: 3 credit hour eCampus online course.

Prerequisites:

Enrollment in this course requires the approval of the aviation program director or the Dean of BHSS.

Instructor: Andrew N. Clouser, adjunct instructor, (731) 613-5632, e-mail: anclouser@mail.wvu.edu

Schedule:

This is an 8 week web/online course with weekly sessions. Each Session begins at 12:01 a.m. on Sunday and ends at 12:00 a.m. on Saturday.

<u>Location</u>: Web/online

<u>Office Hours</u>: Monday – Friday, 8:00 – 4:30 Eastern time.

Course Description:

Designed to provide a detailed understanding of the interrelationship between the national airspace system and air traffic control (ATC), this course includes an overview of the US air traffic control system, types of airspace, ATC communication systems, ATC procedures, FAA ATC regulations, navigational equipment and operation, control tower operations, TRACON and center operations, non-radar operations, and environmental issues.

Course Objectives:

The objectives of Air traffic Control and Airspace are to provide knowledge of airspace design, navigational aids, radar systems, air traffic control, and ATC operations and procedures.

Expected Learning Outcomes:

After completing this course the student will be able to:

• Discuss the history of air traffic control in the United States. [Bloom's: Knowledge]

- Document airspace classification, air traffic control communications, and phraseology. [Bloom's: Synthesis]
- Critique the theory and operation of the various radar systems in operation in US airspace. [Bloom's: Evaluation]
- Summarize the operation of the interrelated systems of air traffic control, airspace, and navigational aids. [Bloom's: Evaluation]

Required Text:

Nolan, Michael S., Fundamentals of Air Traffic Control, Cengage, 2011. ISBN: 978-1-4354-8272-2

Grading:

The student will be evaluated on the following criteria:

Points	Percentage
200	20%
500	50%
300	30%
1000	100%
A	
В	
С	
D	
F	
	Points 200 500 300 1000 A B C D F

Grading Policy:

Discussion posts will be graded on a student's meaningful contribution to the discussion. A post will be considered acceptable if it provides additional information, clarifies a question, provides a different perspective, raises a question, or in some other way contributes to the overall discussion. Simply agreeing with another student's post is not considered acceptable. Students who consistently delay posts until the rest of the class has posted will not receive full credit.

There is an online test each week over the applicable chapters. There is also a comprehensive final exam. Each weekly test has a value of 50 points. The final exam has a value of 100 points.

Write a five to seven page paper on one of the following topics:

- 1. The air traffic controllers strike.
- 2. A cost/benefit analysis of the implementation of domestic RVSM airspace.
- 3. The ramifications of ADS-B on aviation operations through 2020.

Attendance Policy:

Each week students should log on to the course on the eCampus website and complete the weekly assignment by Wednesday of that week. Each student will post his/her response to the discussion question by Thursday and respond to at least two other posts by the end of the week. The additional elements of the discussion questions and responses are designed to help students work through the course material as well as interact with the instructor and other students.

Inclusivity Statement:

The West Virginia University community is committed to creating and fostering a positive learning and working environment based on open communication, mutual respect, and inclusion.

If you are a person with a disability and anticipate needing any type of accommodation in order to participate in this class, please advise me and make appropriate arrangements with the Office of Accessibility Services (293-6700). For more information on West Virginia University's Diversity, Equity, and Inclusion initiatives, please see <u>http://diversity.wvu.edu</u>.

Academic Integrity Statement:

The integrity of the classes offered by any academic institution solidifies the foundation of its mission and cannot be sacrificed to expediency, ignorance, or blatant fraud. Therefore, I will enforce rigorous standards of academic integrity in all aspects and assignments of this course. For the detailed policy of West Virginia University regarding the definitions of acts considered to fall under academic dishonesty and possible ensuing sanctions, please see the Student Conduct Code http://studentlife.wvu.edu/office_of_student_conduct/student_conduct_code. Should you have any questions about possibly improper research citations or references, or any other activity that may be interpreted as an attempt at academic dishonesty, please see me before the assignment is due to discuss the matter.

Assignments Summary:

- Week 1:Read textbook chapter 1 by Wednesday.Respond to Week 1 discussion questions by Wednesday.Respond to at least one classmate's discussion post by Friday.Complete week 1 test.
- Week 2:Read textbook chapter 2 by Wednesday.Respond to Week 2 discussion questions by Wednesday.Respond to at least one classmate's discussion post by Friday.Complete week 2 test.

Week 3:	Read textbook chapters 3 & 4 by Wednesday. Respond to Week 3 discussion questions by Wednesday. Respond to at least one classmate's discussion post by Friday. Complete week 3 test.
<u>Week 4:</u>	Read textbook chapters 5 & 6 by Wednesday. Respond to Week 4 discussion questions by Wednesday. Respond to at least one classmate's discussion post by Friday. Complete week 4 test.
Week 5:	Read textbook chapter 8 by Wednesday. Respond to Week 5 discussion questions by Wednesday. Respond to at least one classmate's discussion post by Friday. Complete week 5 test.
<u>Week 6:</u>	Read textbook chapters 7 & 9 by Wednesday. Respond to Week 6 discussion questions by Wednesday. Respond to at least one classmate's discussion post by Friday. Complete week 6 test.
<u>Week 7:</u>	Read textbook chapters 10 & 11 by Wednesday. Respond to Week 7 discussion questions by Wednesday. Respond to at least one classmate's discussion post by Friday. Complete week 7 test.
<u>Week 8:</u>	Read textbook chapter 12 & 13 (optional) by Wednesday. Respond to Week 8 discussion questions by Wednesday. Respond to at least one classmate's discussion post by Friday. Complete week 8 test. Complete final examination.

<u>Course:</u> AVIA 381 Professional Field Experience

School/Department:

College of Business, Humanities & Social Sciences, Department of Aviation

Semester:

Fall 2015

Course Format and Credit Hours:

1-9 credit hour flight course conducted at an approved flight training partner location. Students may re-enroll in this course until a total of 9 credit hours have been obtained.

Course Overview:

This course provides the flight experience required to earn advanced aviation flight training. It is conducted concurrently with AVIA 300 level courses. It is conducted at an approved flight training provider location and will require the student relocate to and have accommodations at the flight training location. The student is required to meet all FAA, flight training organization, and WVUIT requirements, including medical requirements. The tuition for this course is substantial, and is not refundable. Additionally, flight training is an inherently dangerous activity potentially resulting in serious injury or death. By enrolling in the course the student acknowledges this, agrees to act in a safe and responsible manner, and waives any and all claims against WVUIT, WVU and the flight training provider.

Prerequisites:

Enrollment in this course requires the approval of the aviation program director. Students must also be co-enrolled in the applicable AVIA 300 level AVIA course. A Federal Aviation Administration (FAA) second class medical certificate and a commercial pilot certificate with an instrument rating is required before starting this course. Please contact the Aviation Program Coordinator for more information.

Instructor:

Frank David Robbins, ATP, CFIIMEI, Interim Aviation Program Coordinator, COBE 319, <u>Frank.Robbins@mail.wvu.edu</u>, 304-442-3005, fax 304-442-3810.

Schedule:

8-16 week course, with a minimum of 3 scheduled flight lessons per week. Flight lessons will be scheduled through the approved flight training provider. Students should be prepared to fly at any time, on any day of the week, unless prior arrangements have been made.

Location:

Any approved flight training provider location.

Office:

COBE 319

<u>Office Hours</u>: M-F, 8:00 – 4:30

Course Description:

Flight training conducted in conjunction with AVIA 300 level courses.

Course Objectives:

Students will develop the knowledge, skills, and experience necessary to obtain the applicable advanced pilot training.

Expected Learning Outcomes:

Upon the completion of this course, student will learn the following material(s) and have the following competencies:

- Incorporate the required aeronautical knowledge and skills necessary to complete each flight lesson within standards. [Bloom's: Synthesis]
- Exhibit the knowledge, skills, and maneuvers necessary to successfully pass the applicable FAA practical test. [Bloom's: Application]
- Model standardized flight skills and procedures to meet the requirements of professional aviation organizations. [Bloom's: Synthesis]

Required Text:

Refer to the syllabus for the applicable AVIA course for specific textbook information.

Grading:

The student will be evaluated in this course on the following criteria:

Course Element	Points	Percentage
Prompt attendance for each flight session	300	30%
Proper preparation for lessons	300	30%
Completion of course within allocated flight time	300	30%
Successful completion of the applicable		
practical test on the first attempt.	100	10%
Total	1000	100%

Note: Points may be lost for late completion of the course. See Late Assignments for details.

Grade Scale:

 100 - 90
 A

 89 - 80
 B

 79 - 70
 C

 69 - 60
 D

 59 - 0
 F

Grading Policy:

Course Participation: Students are expected to punctually arrive at each training center appointment, complete reading assignments and lessons on time, and actively participate in all briefings.

Preparation for Lessons: Students are expected to prepare for each lesson in advance by following the course syllabus and materials, following instructor assignments, reading course materials and utilizing available student resources.

Lesson Completion Standards: Students will be evaluated on their ability to meet the completion standards stated at the end of each lesson. Lessons may require more than one flight to meet the standards.

On-Schedule Course Completion: Students are expected to complete the course by the scheduled end of the course. This requires the student be aggressive in attendance and scheduling, as weather and mechanical delay conspire to delay training.

Course Completion within Flight Time Allowance: Students are expected to complete the course within the allocated flight time. If a student exceed the allocated flight time by more than 10%, there will be a 100 point reduction in the student's grade for each 10% overrun.

Successful Completion of the applicable Practical Test on First Attempt: Students will be penalized 10% for failure to successfully pass the practical test on the first attempt.

Final Grade of Incomplete Policy:

The grade of I (Incomplete) will be given only when the instructor believes that the course work is unavoidably incomplete.

1. Students must complete unfinished work, by the end of the next semester enrolled (Fall, Spring, Summer) for any course in which they have received an incomplete.

2. The student is responsible for contacting the instructor of record to develop a written plan to complete the work.

Participation (Attendance) Policies:

Students are expected to punctually arrive at each training center appointment, complete reading assignments and lessons on time, and actively participate in all briefings. Students are also expected to prepare for each lesson in advance by following the course syllabus and materials, following instructor assignments, reading course materials and utilizing available student resources.

Students that consistently fail to arrive promptly for flight lessons will fail the course and are not eligible for a refund of flight fees.

Unsafe Aircraft Operations: If a student engages in any type of intentional unsafe operation of an aircraft, that student will immediately fail the course, be removed from the program and no refunds will be issued.

Inclement Weather: Flight training may only be conducted in suitable weather, as determined by the flight school operator and the flight instructor. It is not the student's decision to decide what weather is acceptable for flight training. The student is expected to arrive at the training center for all flight lessons, unless specifically instructed by the instructor of training center operations no to do so.

Late Assignments:

One outcome of the course is to help students develop the work ethic and discipline required in aviation. Timeliness is a characteristic required of all professional pilots. Therefore, each student is expected to complete the course on time.

Nevertheless, extenuating circumstances do arise. Limited exceptions will be made for late participation when individual circumstances make it difficult for the student to meet the weekly demands of the course. These exceptions will be **limited**. Please make every effort to keep up. Late participation for any reason may result in a grade penalty.

Inclusivity Statement:

West Virginia University community is committed to creating and fostering a positive learning and working environment based on open communication, mutual respect and inclusion.

If you are a person with a disability and anticipate needing any type of accommodation in order to participate in this class, please advise me and make appropriate arrangement with Disability Services (304-293-6700).

Academic Integrity:

The integrity of the classes offered by any academic institution solidifies the foundation of its mission and cannot be sacrificed to expediency, ignorance, or blatant fraud. Therefore, I will enforce rigorous standards of academic integrity in all aspects and assignments of this course. For the detailed policy of West Virginia University regarding the definitions of acts considered to fall under academic dishonesty and possible ensuing sanctions, please see the Student Conduct Code at

<u>http://studentlife.wvu.edu/office of student conduct/student conduct code</u>. Should you have any questions about possibly improper research citations or references, or any other activity that may be interpreted as an attempt at academic dishonesty, please see me before the assignment is due to discuss the matter.

<u>Assignment Summary:</u> Specific assignments and schedules will be determined by the flight training provider. <u>Course</u>: AVIA 480 Human Factors in Flight

School/Department:

College of Business, Humanities& Social Sciences, Department of Aviation

Semester: Fall 2016

<u>Course Format & Credit Hours:</u> 3 credit hour eCampus online course

<u>Prerequisites:</u> Enrollment in this course requires the approval of the aviation program director.

Instructor:

Frank David Robbins, ATP, CFIIMEI, Interim Aviation Program Coordinator, Frank. Robbins@mail.wvu.edu, 304-442-3005.

Schedule:

8 week web/online, with weekly sessions. Each session begins at 12:01 a.m. on Sunday morning and ends at 11:59 p.m. on Saturday night.

Location: Web/online

<u>Office:</u> COBE 319

<u>Office Hours:</u> M-F 8:00 – 4:30

Course Description:

A comprehensive look at human factors in aviation, including human error, fatigue, body rhythms, sleep, fitness and performance, visions and illusions, motivation and leadership, communication, attitudes and persuasion, training and training devices, education and application.

Course Objectives:

Human Factors in Flight presents a broad overview of how the human element of aviation affects performance and safety to develop an awareness of many of the unrecognized risks in aviation. Aviation safety is enhanced through the study of the history of human factors, the influence of organizations, safety culture, cockpit automation, workload, and how these and other elements affect aircraft, and especially airline operations.

Expected Learning Outcomes:

Upon completion of this course the student should:

- Assess the change in safety emphasis from technical to behavioral. [Bloom's: Evaluation]
- Summarize error prevention theories and techniques. [Bloom's: Synthesis]
- Illustrate how organizations and organizational behavior influence safety. [Bloom's: Analysis]
- Recognize how human error effects the safety of aviation operations. [Bloom's: Analysis]
- Design strategies to reduce the effects of human error in aviation. [Bloom's: Synthesis]
- Tell why discussions about the consequences of fatigue in aviation is avoided by industry. [Bloom's: Evaluation]
- Develop personal and organizational plans to fight the effects of fatigue. [Bloom's: Application]

Required Text:

Eduardo Salas and Dan Maurino, *Human Factors in Aviation*, 2010, Academic Press, ISBN: 978-0-12-374518-7

Grading:

Coursework will be evaluated according to the point distribution chart shown below.

Weekly Test Questions (100 points per week)	700
Weekly Discussion Questions (50 points each)	350
Final Examination	550
Reflection Paper	400
Total Points	2000

Grade Assig	<u>inment</u> :	
100-90%	1800-2000	А
89-80%	1600-1799	В
79-70%	1400-1599	С
69-60%	1200-1399	D
59-0%	0-1199	F

Course Policies:

You are only required to read only the assigned chapters of the book. You may find the text a bit challenging; however the weekly open book test questions are designed to help you glean the information more valuable to professional pilots. Please keep in mind the course presents

information beyond the scope of traditional flight training or company indoc. As such it is often information researched and presented by non-pilots. Look for the applicable information, and not for the technical errors a non-flying writer may make. To take our understanding of human factors to the next level, we must look to experts outside of the cockpit.

Chapter tests are open book. There is no time limit on these tests.

Discussion questions are critical for your grade. Your personal experiences and options are appreciated, however referencing outside materials and including the references will produce higher grades on the discussion questions.

The final examination is a timed test. Technically, it is open book, but you will only be allowed 2.4 minutes per question. Plan accordingly!

Participation Policies:

Each week students will log on to the course on the eCampus website and complete the weekly assignment by Wednesday of that week. Each student will post his/her response to the discussion question by Thursday and respond to at least one other post by the end of the week. The additional elements of the discussion questions and responses are designed to help students work through the course material as well as interact with the instructor and other students.

Late Assignments:

This is an interactive online course. As such it is critical that students participate weekly with not just reading and test questions but with participation in the discussion questions. Never the less, I understand the nature of aviation and will grant limited exceptions for late participation when individual circumstances make it difficult for the student to meet the weekly demands of the course. These exceptions will be **limited**. Please make every effort to keep up, especially with the discussion questions. Late participation for any reason may result in a grade penalty.

Incomplete Grades:

WVU Tech and the Department discourages grades of *Incomplete*, however, understands that there are certain circumstances under which a grade of *Incomplete* is appropriate. Grades of *Incomplete* are given at the discretion of the instructor, but normally are granted only if a student has acceptably completed 80% of the coursework prior to the last day of the class. The student must request a grade of *Incomplete* prior to the last day of the course. Such a request should include a list of missing assignments and a date for submission of missing assignments no later than sixty (60) days from the last date of the course. If approved, the student and instructor will complete a Statement of Complete the course requirements within the time allowed causes the grade of *Incomplete* "I" to default to an "F."

Inclusivity Statement:

West Virginia University is committed to social justice. I concur with that commitment and expect to maintain a positive learning environment based upon open communication, mutual respect, and non-discrimination. Our University does not discriminate on the basis of race, sex, age, disability, veterans' status, religion, sexual orientation, color or national origin. Any suggestions as to how to further such a positive and open environment in this class will be appreciated and given serious consideration.

If you are a person with a disability and anticipate needing any type of accommodation in order to participate in this class, please advise me and make appropriate arrangements with the Office of Disability Services (304.293.6700).

Academic Integrity:

The integrity of the classes offered by any academic institution solidifies the foundation of its mission and cannot be sacrificed to expediency, ignorance, or blatant fraud. Therefore, I will enforce rigorous standards of academic integrity in all aspects and assignments of this course. For the detailed policy of West Virginia University regarding the definitions of acts considered to fall under academic dishonesty and possible ensuing sanctions, please see the Student Conduct Code at

<u>http://studentlife.wvu.edu/office of student conduct/student conduct code</u>. Should you have any questions about possibly improper research citations or references, or any other activity that may be interpreted as an attempt at academic dishonesty, please see me before the assignment is due to discuss the matter.

Assignment Summary:

Week	Assignment
1	Read textbook Chapters 1 & 18 and Module 1 Lecture Notes. Answer discussion questions(s) and respond to at least one classmate's post. Complete Module 1 test.
2	Read textbook Chapter 2 pages 23-32, Chapter 3 and Module 2 Lecture Notes. Answer discussion questions(s) and respond to at least one classmate's post. Complete Module 2 test.
3	Read textbook Chapter 4, 5, and Module 3 Lecture Notes. Answer discussion questions(s) and respond to at least one classmate's post. Complete Module 3 test.
4	Read textbook Chapter 6, 7, and Module 4 Lecture Notes. Answer discussion questions(s) and respond to at least one classmate's post. Complete Module 4 test.

- 5 Read textbook Chapter 8, 9, and Module 5 Lecture Notes. Answer discussion questions(s) and respond to at least one classmate's post. Complete Module 5 test.
- 6 Read textbook Chapter 11, and Module 6 Lecture Notes. Answer discussion questions(s) and respond to at least one classmate's post. Complete Module 6 test.
- 7 Read textbook Chapter 13, and Module 7 Lecture Notes. Answer discussion questions(s) and respond to at least one classmate's post. Complete Module 7 test.
- 8 Complete Reflection Paper and Final Examination.

<u>Course:</u> AVIA 483 Air Transportation

School/Department:

College of Business, Humanities & Social Sciences, Department of Aviation

Semester: Fall 2015

<u>Course Format and Credit Hours:</u> 3 credit hour eCampus online course

Prerequisites: None

Instructor: Steve Owens, <u>spowens@mail.evu.edu</u>, (740) 538-1610

Schedule:

8 week web/online, with weekly sessions. Each session begins at 12:01 a.m. on Sunday and ends at 11:59 p.m. on Saturday.

Location: Web/online

<u>Office:</u> COBE 319

<u>Office Hours:</u> M-F, 8:00 – 4:30

Course Description:

A study of both the historical and present aviation industry. Subjects include air commerce; domestic and international aviation regulation and regulatory agencies; legal issues in air transportation; air carrier aircraft; and general aviation aircraft.

Course Objectives:

A comprehensive review of the history and role of air transportation designed to familiarize the student with the historical and present status of air transportation; the regulation of the aviation industry; air transportation administration; and airline and general aviation aircraft. Key areas of study include the importance of air transportation, airplane development, commercial air transportation, the air carrier industry, federal legislation, and the Department of Transportation.

Course Learning Outcomes:

Upon completion of this course the student should:

- Discuss the history of the aviation transportation system in the United States. [Bloom's: Comprehension]
- Summarize the development of regulation in the field of aviation in both the domestic and international air transportation systems. [Bloom's: Synthesis]
- Analyze the basic management and marketing concepts of the air carrier industry. [Bloom's: Analysis]
- Demonstrate knowledge of air carrier aircraft and the major air carrier aircraft manufacturers. [Bloom's: Comprehension]
- Assess the role of general aviation in the air transportation industry. [Bloom's: Evaluation]

<u>Text</u>:

Kane, Robert M., *Air Transportation* -with CD, Kendall/Hunt Publishing Company 2012, 16th edition. ISBN: 978-1-4652-0687-9

Grading:

Your coursework will be evaluated according to the point distribution chart shown below:

Activity	Points
Discussion Questions (8 @ 25 points each)	200
Exams (7 @ 50 points each)	350
Assignment Questions (14 at 25 each)	350
Research Paper	100
Total Points	1000

<u>Grade Scale:</u> At the end of the course, a letter grade will be assigned based upon the following grading scale.

Points Earned	Grade
900-1000	Α
800-899	В
700-799	С
600-699	D
0-599	F

Discussion Questions:

Post your response to the discussion questions and respond to at least two others. Comments such as "I agree" or "Good point" will not be accepted. Please state your reasons for agreeing,

disagreeing (it is OK to disagree with another student) and include a real-world situation that relates to your point. Discussion questions are critical for your grade.

Participation (Attendance) Policies:

Each week students will log on to the course on the eCampus website and complete the weekly assignment by Wednesday of that week. Each student will post his/her response to the discussion question by Thursday and respond to at least one other post by the end of the week. The additional elements of the discussion questions and responses are designed to help students work through the course material as well as interact with the instructor and other students.

Late Assignments:

An assignment that is submitted late is better than no assignment at all. However, there will be an initial 10% penalty for work being submitted late, and 1% per day for each day the assignment is submitted after the due date. If you need to make an arrangement due to something unexpected, you will need to coordinate with your instructor in advance.

Incomplete Grades:

WVU Tech and the Department discourages grades of *Incomplete*, however, understands that there are certain circumstances under which a grade of *Incomplete* is appropriate. Grades of *Incomplete* are given at the discretion of the instructor, but normally are granted only if a student has acceptably completed 80% of the coursework prior to the last day of the class. The student must request a grade of *Incomplete* prior to the last day of the course. Such a request should include a list of missing assignments and a date for submission of missing assignments no later than sixty (60) days from the last date of the course. If approved, the student and instructor will complete a Statement of Complete the course requirements within the time allowed causes the grade of *Incomplete* "I" to default to an "F."

Inclusivity Statement:

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If you are a person with a disability and anticipate needing any type of accommodation in order to participate in this class, please advise me and make appropriate arrangements with the Office of Disability Services (304.293.6700).

Academic Integrity:

The integrity of the classes offered by any academic institution solidifies the foundation of its mission and cannot be sacrificed to expediency, ignorance, or blatant fraud. Therefore, I will

enforce rigorous standards of academic integrity in all aspects and assignments of this course. For the detailed policy of West Virginia University regarding the definitions of acts considered to fall under academic dishonesty and possible ensuing sanctions, please see the Student Conduct Code at

http://studentlife.wvu.edu/office_of_student_conduct/student_conduct_code. Should you have any questions about possibly improper research citations or references, or any other activity that may be interpreted as an attempt at academic dishonesty, please see me before the assignment is due to discuss the matter.

Assignment Summary:

Week 1	Introduction Forum – Introduce yourself to the class Read Chapters 1-3 Assessment 1 – 20 question multiple choice exam Answer Discussion Question by Wednesday Reply to at least one classmate's post by Thursday Answer Assignment Questions Submit Research Paper Topic for Approval
Week 2	Read Chapters 4-6 Assessment 2 – 20 question multiple choice exam Answer Discussion Question by Wednesday Reply to at least one classmate's post by Thursday Answer Assignment Questions
Week 3	Read Chapters 7-9 Assessment 3 – 20 question multiple choice exam Answer Discussion Question by Wednesday Reply to at least one classmate's post by Thursday Answer Assignment Questions
Week 4	Read Chapters 10-12 Assessment 4 – 20 question multiple choice exam Answer Discussion Question by Wednesday Reply to at least one classmate's post by Thursday Answer Assignment Questions
Week 5	Read Chapters 13-15 Assessment 5 – 20 question multiple choice exam Answer Discussion Question by Wednesday Reply to at least one classmate's post by Thursday Answer Assignment Questions

Week 6	Read Chapters 16-19
	Assessment 6 – 20 question multiple choice exam
	Answer Discussion Question by Wednesday
	Reply to at least one classmate's post by Thursday
	Answer Assignment Questions

- Week 7Read Chapters 21-25 (skip Chapter 20)Assessment 7 20 question multiple choice examAnswer Discussion Question by WednesdayReply to at least one classmate's post by ThursdayAnswer Assignment Questions
- Week 8Read Chapters 26 and 27Answer Discussion Question by WednesdayReply to at least one classmate's post by ThursdayDiscussion QuestionSubmit Final Research Paper

<u>Course:</u> AVIA 484 Aviation Safety

School/Department:

College of Business, Humanities& Social Sciences, Department of Aviation

Semester: Fall 2016

<u>Course Format and Credit Hours:</u> 3 credit hour eCampus online course

<u>Prerequisites:</u> Enrollment in this course requires the approval of the aviation program director.

Instructor:

Captain John Sabel, <u>ivsabel@mail.wvu.edu</u>, 412-512-7846 (During normal business hours, Eastern Time)

Schedule:

8 week web/online, with weekly sessions. Each session begins at 12:01 a.m. on Sunday morning and ends at 11:59 p.m. on Saturday night.

<u>Location:</u> Web/online

<u>Office:</u> COBE 319

Office Hours: M-F 8:00 – 4:30

Course Description:

This course provides practical guidance on the aircraft command techniques used during routine and unexpected situations. It includes the role of the captain, characteristics of effective leaders, judgment and decision skills, management of resources, communication techniques, and emergency situations.

Course Objectives:

Safety Management Systems presents a "systems" approach to safety. Moving beyond the concept of safety being the lack of accidents, Safety Management Systems details proactive strategies to build safety into the core of the aviation organization.

Course Learning Outcomes:

Upon completion of this course the student should:

- Compare and contrast the approach to safety from a managerial perspective as opposed to a behavioral perspective. [Bloom's: Evaluation]
- Discuss the history of aviation safety. [Bloom's: Comprehension]
- Explain risk assessment strategies. [Bloom's: Synthesis]
- Critique risk-based safety risk and management/safety assurance. [Bloom's: Evaluation]

<u>Text</u>:

Soltzer, Allen J., Halford, Carl D., Goglia, Carl D., *Safety Management Systems in Aviation*. 2010 Ashgate, ISBN 978-1-4094-1211-3

Grading:

Coursework will be evaluated according to the point distribution chart shown below.

Activity	Points
Weekly test questions (100 points per week)	700
Weekly discussion questions (50 points each)	350
Final examination	550
Final paper	400
Total Points	2000

Grade Assignment:

At the end of the course, a letter grade will be assigned based upon the following grading scale:

Percentage	Points Earned	Grade
90-100%	1800-2000	А
80-89%	1600-1799	В
70-79%	1400-1599	С
60-69%	1200-1399	D
0-59%	1199 & below	F

Assignments:

Read the book as assigned in the schedule at the end of the syllabus.

Chapter tests are open book. There is no time limit on these tests.

Discussion questions are critical for your grade. Your personal experiences and options are appreciated, however referencing outside materials and including the references will produce higher grades on the discussion questions.

The final examination is a timed test. Technically it is open book, but you will only be allowed 2.4 minutes per question. Plan accordingly!

Participation (Attendance) Policies:

Each week students will log on to the course on the eCampus website and complete the weekly assignment by Wednesday of that week. Each student will post his/her response to the discussion question by Thursday and respond to at least one other post by the end of the week. The additional elements of the discussion questions and responses are designed to help students work through the course material as well as interact with the instructor and other students.

Late Assignments:

This is an interactive online course. As such it is critical that students participate weekly with not just reading and test questions but with participation in the discussion questions. Never the less, I understand the nature of aviation and will grant limited exceptions for late participation when individual circumstances make it difficult for the student to meet the weekly demands of the course. These exceptions will be **limited**. Please make every effort to keep up, especially with the discussion questions. Late participation for any reason may result in a grade penalty.

Incomplete Grades:

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Inclusivity Statement:

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If you are a person with a disability and anticipate needing any type of accommodation in order to participate in this class, please advise me and make appropriate arrangements with the Office of Disability Services (304.293.6700).

Academic Integrity:

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enforce rigorous standards of academic integrity in all aspects and assignments of this course. For the detailed policy of West Virginia University regarding the definitions of acts considered to fall under academic dishonesty and possible ensuing sanctions, please see the Student Conduct Code at

http://studentlife.wvu.edu/office_of_student_conduct/student_conduct_code. Should you have any questions about possibly improper research citations or references, or any other activity that may be interpreted as an attempt at academic dishonesty, please see me before the assignment is due to discuss the matter.

Assignment Summary:

Week #1	Read chapters 1 & 2 from the textbook. Answer open book test questions and online discussion questions. Reply to at least one classmates' post.
Week #2	Read chapter 3 from the textbook. Answer open book test questions and online discussion questions. Reply to at least one classmates' post.
Week #3	Read chapters 4 & 5 from the textbook. Answer open book test questions and online discussion questions. Reply to at least one classmates' post.
Week #4	Read chapter 7 from the textbook. Answer open book test questions and online discussion questions. Reply to at least one classmates' post.
Week #5	Read chapter 8 from the textbook. Answer open book test questions and online discussion questions. Reply to at least one classmates' post.
Week #6	Read chapters 9 & 10 from the textbook. Answer open book test questions and online discussion questions. Reply to at least one classmates' post.
Week #7	Read chapter 11 from the textbook. Answer open book test questions and online discussion questions. Reply to at least one classmates' post.
Week #8	Complete final examination and submit paper

<u>Course:</u> AVIA 485 Aviation Economics

School/Department:

College of Business, Humanities & Social Sciences, Department of Aviation

Semester: Spring 2016

<u>Course Format and Credit Hours:</u> 3 credit hour eCampus online course

Prerequisites:

Enrollment in this course requires the approval of the aviation program director.

Instructor:

Andrew N. Clouser, adjunct instructor, (731) 613-5632, e-mail: anclouser@mail.wvu.edu

Schedule:

8 week web/online, with weekly sessions. Each Session begins at 12:01 on Sunday and ends at 12:00 a.m. on Saturday.

Location: Web/online

<u>Office:</u> COBE 319

Office Hours: M-F 8:00-4:30

Course Description:

Aviation Economics deals with middle and upper management in the volatile airline industry. Topics include output, unit cost, traffic, and yield, as well as the effect of these subjects on operating expenses and revenues and the corresponding relationships that profit and loss.

Course Objectives:

To present to students the economic perspective on airline operations as opposed to the more traditional operations or regulatory perspective that is the norm for many individuals within the industry. This includes supply and demand, market equilibrium, costs, managerial decision making, market structures, contestability theory, and the applications of these principles to industry operations.

Expected Learning Outcomes:

Upon completion of this course the student should:

- Explain the basic concepts and principles which are used in the general economic environment within which airlines operate. [Bloom's: Synthesis]
- Recognize the factors that impact economics that assist aviation managers in carrying out their work. [Bloom's: Analysis]
- Critique economic decisions that airlines have made in the past. [Bloom's: Evaluation]
- Analyze current economic decision being made in the airline industry. [Bloom's: Analysis]
- Compare and contrast private and government owned airlines. [Blooms': Evaluation]

<u>Text</u>:

Fleming, K., Tacker, T., Vasigh B., (2008) *Introduction to Air Transport Economics,* Ashgate Publishing Company, ISBN 978-0-7546-7081-1 (paperback).

Grading:

Your coursework will be evaluated according to the point distribution chart shown below.

Activity	Points
Discussions (5 @ 25 points each)	125
Quizzes (8 @ 25 points each)	200
Reflection Papers (3 @ 50 points each)	150
Total Points	475

Grade Assignment:

100-90%	427-475	А
89-80%	365-426	В
79-70%	332-364	C
69-60%	285-331	D
59-0%	0-284	F

Discussions:

Due dates for discussions are the Saturday of each module week. You are expected to begin a discussion thread of your own and reply to two other students' posts with substantive information that adds to the dialogue. Comments such as "I agree" or "Good point" will not be accepted. Please state your reasons for agreeing or disagreeing (it is OK to disagree with another student).

Participation (Attendance) Policies:

Each week students will log on to the course on the eCampus website and complete the weekly assignment by Wednesday of that week. Each student will post his/her response to the discussion question by Thursday and respond to at least one other post by the end of the week. The additional elements of the discussion questions and responses are designed to help

students work through the course material as well as interact with the instructor and other students

Late Assignments:

Will be accepted but will not receive full credit.

Incomplete Grades:

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http://studentlife.wvu.edu/office_of_student_conduct/student_conduct_code. Should you have any questions about possibly improper research citations or references, or any other activity that may be interpreted as an attempt at academic dishonesty, please see me before the assignment is due to discuss the matter.

Assignment Summary:
Week #1 Read pages 1-35 from the textbook. Answer the Week 1 discussion question and reply to at least two other students' posts. Complete the 25 question multiple choice exam.

Week #2 Read pages 36-75 from the textbook. Answer the Week 2 discussion question and reply to at least two other students' posts. Complete the 25 question multiple choice exam.

Week #3 Read pages 76-120 from the textbook. Write a Reflection Paper of no less than 3 pages. Complete the 25 question multiple choice exam.

Week #4 Read pages 121-177 from the textbook. Answer the Week 4 discussion question and reply to at least two other students' posts. Complete the 25 question multiple choice exam.

Week #5 Read pages 179-223 from the textbook. Answer the Week 5 discussion question and reply to at least two other students' posts. Complete the 25 question multiple choice exam.

Week #6 Read pages 223-278 from the textbook. Write a Reflection Paper of no less than 3 pages. Complete the 25 question multiple choice exam.

Week #7 Read pages 279-316 from the textbook. Answer the discussion question and reply to at least two other students' posts. Complete the 25 question multiple choice exam.

Week #8 Read pages 317-351 from the textbook. Write a Reflection Paper of no less than 3 pages. Complete the 25 question multiple choice exam.

<u>Course:</u> AVIA 486 Aviation Systems Management

School/Department:

College of Business, Humanities & Social Sciences, Department of Aviation

Semester: Spring, 2016

<u>Course Format and Credit Hours:</u> 3 credit hour eCampus online course

Prerequisites:

Enrollment in this course requires the approval of the aviation program director or the Dean of BHSS.

Instructor: Dr. Shari Frisinger, slfrisinger@mail.wvu.edu, 281.992.4136

Schedule:

8 week web/online, with weekly sessions. Each session begins at 12:01 a.m. on Sunday and ends at 11:59 p.m. on Saturday.

<u>Location:</u> Web/online

<u>Office Hours:</u> Monday through Friday, 9:00 – 4:30 CST

Course Description:

Explores management methods used by aviation crews, management, suppliers, service providers, and manufacturers. Focuses on decision analysis, decision research, peer-to-peer communication, sales management, emotional intelligence, and the Johari Window.

Expected Learning Outcomes:

Upon completion of this course the student will have competencies in the following areas:

- Define emotional intelligence and the Johari Window. [Bloom's: Comprehension]
- Recognize the myths concerning emotional intelligence. [Bloom's: Analysis]
- Use the examples of prior aviation accidents to assess leadership. [Bloom's: Application & Evaluation]
- Summarize the relationships between personality traits, emotional intelligence and leadership. [Bloom's: Synthesis]

• Analyze the behaviors of self and others to identify potential conflict or other situations that can adversely affect safety. [Bloom's: Analysis & Comprehension]

Required Text:

Hughes, Richard, *Leadership: Enhancing the Lessons of Experience*, McGraw-Hill Publishing Company, 7th Ed. 2012, ISBN-13: 978-0-07-811265-2

Grading:

Your coursework will be evaluated as shown below:

Discussion responses and replies (6 @ 25 points each)	150
Written Papers (4 @ 150 points each)	600
Final Paper	250
Total Points	1000

Grade Assignment:

900–1000	А
800–899	В
700–799	С
600–699	D
599 & below	F

Grading Policy:

Post your response to the discussion questions and respond to at least two others. Comments such as "I agree" or "Good point" will not be accepted. Please state your reasons for agreeing, disagreeing (it is OK to disagree with another student) and include a real-world situation that relates to your point.

Papers are to be 3–5 pages in length, excluding cover page and references. No fluff; do not add words just to get to the desired paper length. Use at least three references in each paper. APA format available online at <a href="http://www.http://wwww.http://wwww.http://www.http://www.http://www.http://www.http://www.http://wwww.http://www.http://www.http://www.http://www.http://www.http://www.http://www.http://www.http://www.http://www.http://www.http://www.http://www.http://www.http://www.http://www.http://www.http://www.http://wwww.http://wwwww.http://wwwww.http://www.http://wwww.http://wwwww.htt

Late Assignments:

Realizing your schedule may not permit prompt postings and replies, late assignments are accepted. However I do ask that you email me if you will not be able to make any postings for more than seven days. Any papers submitted more than two weeks late will be docked.

Incomplete Grades:

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Assignment Summary:

Week 1 Go to www.kevan.org/johari and www.kevan.org/nohari and follow the directions. Send the link to at least eight of your friends or colleagues. Answer the two discussion questions. Respond to at least two of your classmate's posts.

Week 2 Read Chapter 6 of your textbook, paying particular attention to the sections
"Intelligence and Leadership" and "Emotional Intelligence and Leadership."
Review the following sections on http://www.unh.edu/emotional_intelligence/ "What is
Emotional Intelligence? Controversies in Emotional Intelligence and Measuring Emotional
Intelligence." Write paper: summarize the emotional intelligence models presented. Elaborate
on why you believe it does or does not have any validity. Which of these areas is your greatest
challenge and why?

Week 3 Read the white paper "United Airlines 232, Being Proactive in a Reactive World". Research additional articles on this accident (Wikipedia as a source does not count). Answer the discussion question. Respond to at least two of your classmate's posts.

Week 4 Read the white paper Colgan Air 3407 and the article "Emotionally Enabled". Answer the discussion questions. Respond to at least two of your classmate's posts. Write paper: do you agree/disagree with the findings presented in these papers (both in Week 3 and in Week 4)? Why or why not? Remember: do not address the technical issues in these accidents, address the interpersonal skills and situational awareness of the captains and their crew.

Week 5 Read the white paper "The Makeup of Corporate Flight Departments". Write paper: using the white paper "The Makeup of Corporate Flight Departments", where do you fall in the circle? Did you have any surprises in your Johari Window results (from Week 1)?

Week 6 Read Chapter 8 and Chapter 10 of your textbook. Answer the discussion questions. Respond to at least two of your classmate's posts.

Week 7 Read Chapter 16 of your textbook. Respond to the discussion questions. Respond to at least two of your classmate's posts. Using page 665 "the five approaches to conflict management," provide a real-world scenario [no longer than three paragraphs for each approach] where one approach would provide a better outcome than the others.

Week 8 Review all the reading assignments in this course. Final Paper: using the above books and papers, provide a real-world situation you experienced that was handled incorrectly, and how you would handle it differently. Explain your rationale and assumptions. Be sure to cite the appropriate references. <u>Course:</u> AVIA 487 Aviation Security

School/Department:

College of Business, Humanities& Social Sciences, Department of Aviation

Semester: Fall 2016

<u>Course Format and Credit Hours:</u> 3 credit hour eCampus online course

<u>Prerequisites:</u> Enrollment in this course requires the approval of the aviation program director.

Instructor: Steve Owens, <u>spowens@mail.evu.edu</u>, (740) 538-1610

Schedule:

8 week web/online, with weekly sessions. Each session begins at 12:01 a.m. on Sunday morning and ends at 11:59 p.m. on Saturday night.

Location: Web/online

<u>Office:</u> COBE 319

<u>Office Hours:</u> M-F 8:00 – 4:30

Course Description:

Aviation Security presents basic information on security issues and concerns in the aviation industry. It includes the historical aspects of aviation security, information on current security operations and information on the security tools used within the industry.

Course Objectives:

The Aviation Security course presents information on security issues and concerns in the aviation industry. It includes a review of the historical aspects of aviation security, fundamental knowledge and practices required for day-to-day operation as an aviation professional, and information on the latest electronic tools and resources that help aviation security professionals establish and maintain a safe operating environment.

Course Learning Outcomes:

Upon completion of this course the student should:

- Summarize the historical and current threats against the global aviation industry. [Bloom's: Synthesis]
- Assess how roots and motivation behind terrorism have changed during the Jet Age. [Bloom's: Evaluation]
- Demonstrate comprehensive knowledge of all applicable Transportation Security Administration regulation, International Civil Aviation Organization requirements, Federal Aviation Regulations, and International Treaties relating to aviation security. [Bloom's: Application]
- Outline the important historical policy decisions made by lawmakers when drafting the National Transportation Security Act in November 2001 and the follow on Transportation Enhancement Security Act. [Bloom's: Analysis]
- Discuss the procedures and equipment used in airport security screening. [Bloom's: Comprehension]

<u>Text</u>:

Sweet, K. (2009). Aviation and Airport Security: Terrorism and Safety Concerns. CRC Press, ISBN: 9781420088168.

Grading:

Coursework will be evaluated according to the point distribution chart shown below:

Course Element	Points
Weekly Discussions 8 @ 50 points	400
Bi-Weekly Assignments 4 @ 75 points	300
Bi-Weekly Test 4 @ 75 points	300
Total	1000

Grade Assignment:

At the end of the course, a letter grade will be assigned based upon the following grading scale:

Percentage	Letter Grade
90-100	А
80–89	В
70–79	С
60–69	D
00–59	F

Course Policies:

Students are expected to complete assigned readings early in the week and participate in discussions. Specifically, students must spend about an hour a day at least four times a week participating in threaded discussions. Because it is so critical to your success in this class, *participation is monitored*. Your discussion replaces an equivalent amount of time spent in classroom discussion for a traditional, face-to-face, on-campus class.

Each week you will find several different postings as part of your learning process. You must make an initial posting and at least one response to another student's posting for each question. You can make multiple responses to the same question after your initial response, but it is usually better to engage in discussion of more than one question. The length of your initial posting and your responses should seldom exceed one screen. In general, you should not exceed 5 or 6 postings per discussion session.

5 thoughtful postings are better than 10 mediocre ones.

Post your initial responses before reading the postings of others.

On the weeks that essays are due, the students will draft their paper, post it to the discussion, and comment on the work of their peers. The discussion aspect is worth 50 points each week. Based upon instructor comments and the feedback from their fellow students, the students will then revise/improve their paper and upload it to the assignment area. The final draft (assignment) will be worth 75 points.

Essays: Submit a two to three page double-spaced paper (does not include the Reference section), in the American Psychological Association (APA) format. For all assignments, the purpose is for each of us to LEARN. Please do not just do research and provide a compendium of facts and issues. It is critical that you not only provide scholarly research (this means – do not use blogs or Wikipedia as source material), but also to employ critical thinking.

Participation (Attendance) Policies:

Each week students will log on to the course on the eCampus website and complete the weekly assignment by Wednesday of that week. Each student will post his/her response to the discussion question by Thursday and respond to at least one other post by the end of the week. The additional elements of the discussion questions and responses are designed to help students work through the course material as well as interact with the instructor and other students.

Late Assignments:

This is an interactive online course. As such it is critical that students participate weekly with not just reading and test questions but with participation in the discussion questions. Never the less, I understand the nature of aviation and will grant limited exceptions for late participation when individual circumstances make it difficult for the student to meet the weekly demands of the course. These exceptions will be **limited**. Please make every effort to keep up,

especially with the discussion questions. Late participation for any reason may result in a grade penalty.

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Weekly Class Schedules-

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Assignment	Due Date	Specifics
Textbook Readings	Wednesday	Chapter 1
Discussion Assignment	Thursday	Post a draft of the paper detailed below to the discussion area by Thursday of this week. Read and discuss the work of your peers. It is important that your comments are substantive and help to expand the weekly topic. Based upon instructor comments and the feedback from your classmates, revise/improve your paper and upload it to the assignment area by Sunday of this week.
Essay Assignment	Sunday	Submit a two to three page double-spaced paper (does not include the Reference section), in the American Psychological Association (APA) format, on the following question: The horrific events of 11 September 2001 exemplified the potential results of terrorist attacks on not only the aviation industry, but also the financial foundations of the United States and the global economy in general. What is the history of the air transportation system? In your opinion, what are new tactics that may be employed by terrorists to use public or private air transportation to attack our nation? How do you propose we protect the public and private air transportation systems?
Special Instructions		For all assignments, the purpose is for each of us to LEARN. Please do not just do research and provide a compendium of facts and issues. It is critical that you not only provide scholarly research (this means – do not use Blogs or Wikipedia as source material), but also to employ critical thinking. <i>Please read and understand the information provided by the</i> <i>following online resource</i> : <u>http://www.criticalthinking.com/company/articles/critical- thinking-definition.jsp</u>

	When you provide your input, remember to use APA formatting (<i>write in the third person – e.g., this researcher, this investigator, the student, etc.</i>). Also, provide a Reference section to your paper (minimum of 2 references).

Week #2: Chapter 2: The Historical Hijacking Threat and Government Response: A Persistent Problem

Chapter 3: International Solutions and Reactions

Assignment		Specifics
Textbook Readings	Wednesday	Chapter 2 & 3
Discussion Assignment	Thursday	Provide a review of the need and development of aircraft and airport security functions from 1970 thru today. In your opinion, how effective is the current Transportation Security Administration (TSA)? What are the strengths and weaknesses, and what would you improve? Why?
Exam	Sunday	Complete and Submit: Week 2: Chapter 1-3 Exam

Week #3: Chapter 4: Growth and Change: Aircraft as Missiles Chapter 5: Terrorism: The Roots Remain

Assignment	Due Date	Specifics
Textbook Readings	Wednesday	Chapter 4 & 5
Discussion Assignment	Thursday	Post a draft of the paper detailed below to the discussion area by Thursday of this week. Read and discuss the work of your peers. It is important that your comments are substantive and help to expand the weekly topic. Based upon instructor comments and the feedback from your classmates, revise/improve your paper and upload it to the assignment area by Sunday of this week.
Essay Assignment	Sunday	Submit a two to three page double-spaced paper (does not

	include the Reference section), in the American Psychological Association (APA) format, on the following question:
	Review and critique the security procedures that were in place on September 11, 2001. Did any of those procedures work, and if not, why? Also, provide an opinion as to what you would do specifically to enhance current security.

Week #4: Chapter 6: International Major Counterterrorism Units, Law Enforcement, and Intelligence

Assignment	Due Date	Specifics
Textbook Readings	Wednesday	Chapter 6 & 7
Discussion Assignment	Thursday	Does airport screening, in its current form, provide meaningful security to the air transportation system? Why? What are the weaknesses in the current aggregate airport screening processes? What would you propose to alleviate the weaknesses in the current aggregate airport screening processes?
Exam	Sunday	Complete and Submit: Week 4: Chapter 4 - 7 Exam

Week #5: Chapter 8: Private Security Personnel versus Transportation Administration Security Personnel – Increased Supervision?

Chapter 9: Metal Detectors, X-Ray Inspection, Explosive Detection, and Trace Detection Devices: Will the Public Tolerate the Intrusion?

Assignment	Due Date	Specifics
Textbook Readings	Wednesday	Chapter 8 & 9
Discussion Assignment	Thursday	Post a draft of the paper detailed below to the discussion area by Thursday of this week. Read and discuss the work of your peers. It is important that your comments are substantive and help to expand the weekly topic. Based upon instructor comments and the feedback from your classmates, revise/improve your paper and upload it to the assignment area by Sunday of this week.
Essay Assignment	Sunday	Submit a two to three page double-spaced paper (does not include the Reference section), in the American Psychological Association (APA) format, on the following question: What are some of the major historical problem areas confronting airport screeners and airport passenger screening in general? Should airport screening be conducted by private security personnel? Since airport screeners are federal employees, in your opinion is the Fourth Amendment being violated? Why? Why not?

Week #6: Chapter 10: Cargo Security: A Loose End
Chapter 11: A Slippery Slope

Assignment	Due Date	Specifics
Textbook Readings	Wednesday	Chapter 10 & 11
Discussion Assignment	Thursday	What should be done with cargo security? How could it be made better? Should this security be done by another organization or the Federal Government? Think outside of the box.
Exam	Sunday	Complete and Submit: Week 6: Chapter 8 - 11 Exam

Week #7: Chapter 12: Foreign Airport Security: Comparison of US Law and Foreign Domestic Law – Lessons Learned

Chapter 13:	Technological	Improvements:	Some Intrusiv	e, Some Not
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Assignment	Due Date	Specifics
Textbook Readings	Wednesday	Chapter 12 & 13
Discussion Assignment	Thursday	Post a draft of the paper detailed below to the discussion area by Thursday of this week. Read and discuss the work of your peers. It is important that your comments are substantive and help to expand the weekly topic. Based upon instructor comments and the feedback from your classmates, revise/improve your paper and upload it to the assignment area by Sunday of this week.
Essay Assignment	Sunday	Submit a two to three page double-spaced paper (does not include the Reference section), in the American Psychological Association (APA) format, on the following question: Provide a compendium of the current technology being used at airports. What new technology do you ascertain would improve airport security? Should the import and export of technology be restricted? Why? Why not?

Week #8: Chapter 14: Airport Operator Concerns & Other Safety & Security Issues: The Foundations of Security

Chapter 15: Access Controls, Per	imeter Security: Another Foundation

Assignment	Due Date	Specifics
Textbook Readings	Wednesday	Chapter 14 & 15
Discussion Assignment	Thursday	What processes should be implemented to determine the best methods of creating an effective toolbox of assets to combat the threats to aviation? Should passenger profiling be implemented? Why? Why not? What is CLEAR [®] and is it a benefit or an added security risk? (You will have to do outside research).
Exam	Sunday	Complete and Submit: Week 8: Chapter 12 - 15 Exam

<u>Course:</u> AVIA 488 Aviation Stories: Aviation and the Humanities

School/Department:

College of Business, Humanities& Social Sciences, Department of Aviation

Semester: Fall 2015

<u>Course Format and Credit Hours:</u> 3 credit hour eCampus online course

Prerequisites: None

Instructor: Rachel L. Bragg, (304) 469-4422, rlbragg@mail.wvu.edu

Schedule:

8 week web/online, with weekly sessions. Each session begins at 12:01 a.m. on Sunday morning and ends at 11:59 p.m. on Saturday night.

<u>Location:</u> Web/online

<u>Office:</u> COBE 319

<u>Office Hours:</u> M-F 8:00 – 4:30

<u>Text</u>:

De Saint-Exupery. *Wind, Sand, and Stars*. 2002. Harvest Books. ISBN 0156027496 Lindbergh, Anne. *North to the Orient*. 1966. Harvest Books. ISBN 0156671409 Berg, A. Scott. *Lindbergh*. 1999. Berkley Trade. ISBN 0425170411 Hickam, Homer. *Rocket Boys*. 2000. Delta. ISBN 0385333218

Course Description:

Aviation Stories develops an understanding of how flying has come to be incorporated into literature since the early days of flight. Includes readings from books, journals, and memoirs that deal with the human side of flying.

Course Objectives:

To foster an understanding of how the business of flying and flying for pleasure have come to be incorporated into our arts, especially literature, since the early days of flight, through readings from journals, memoirs, fiction, and nonfiction that deal with the human side of flying airplanes. Focus is placed on examining the themes of fear and courage, persons who fly, and the positioning of aviators as heroes.

Expected Learning Outcomes:

Upon completion of this course the student should:

- Correlate the physical side of flying a plane for pleasure or business with the emotional, psychological, and perhaps spiritual aspects of flight. [Bloom's: Analysis]
- Communicate how literature reflects the social, historical, and philosophical trends that shape a culture's understanding of flying and humankind's role in flying. [Bloom's: Synthesis]
- Write interpretative, responsive, and analytical essays about literature pertaining to flying and humankind's experience of flying. [Blooms: Synthesis & Analysis]
- Assemble fiction and nonfiction in a scholarly research project and/or paper. [Bloom's: Synthesis]
- Incorporate a better appreciation of flight as a "human" experience. [Bloom's: Synthesis]

Grading:

Your coursework will be evaluated according to the point distribution chart shown below:

Activity	Points
Discussion Questions (6 @ 25 points each)	150
Essay #1: Reflective Essay	50
Essay #2: Narrative Essay	75
Essay #3: Expository Essay	125
Essay #4: Historical Essay	150
Research Project	250
Aviation Technology Journal	200
Total Points	1000

Post your response to the discussion questions and respond to at least two others. Comments such as "I agree" or "Good point" will not be accepted. Please state your reasons for agreeing, disagreeing (it is OK to disagree with another student) and include a real-world situation that relates to your point.

Grade Assignment:

At the end of the course, a letter grade will be assigned based upon the following grading scale:

Grade
А
В
С
D
F

Participation (Attendance) Policies:

Each week students will log on to the course on the eCampus website and complete the weekly assignment by Wednesday of that week. Each student will post his/her response to the discussion question by Thursday and respond to at least one other post by the end of the week. The additional elements of the discussion questions and responses are designed to help students work through the course material as well as interact with the instructor and other students.

Late Assignments:

Late assignments will be dropped a letter grade for each day that they are late unless the instructor has been contacted and arrangements are made prior to the assignment due date for a late submission. Assignments submitted 2 weeks past the due date will not be accepted—no exceptions.

Incomplete Grades:

WVU Tech and the Department discourages grades of *Incomplete*, however, understands that there are certain circumstances under which a grade of *Incomplete* is appropriate. Grades of *Incomplete* are given at the discretion of the instructor, but normally are granted only if a student has acceptably completed 80% of the coursework prior to the last day of the class. The student must request a grade of *Incomplete* prior to the last day of the course. Such a request should include a list of missing assignments and a date for submission of missing assignments no later than sixty (60) days from the last date of the course. If approved, the student and instructor will complete a Statement of Completion that will act as a contract for the completion of coursework. Failure to complete the course requirements within the time allowed causes the grade of *Incomplete* "I" to default to an "F."

Inclusivity Statement:

West Virginia University is committed to social justice. I concur with that commitment and expect to maintain a positive learning environment based upon open communication, mutual respect, and non-discrimination. Our University does not discriminate on the basis of race, sex, age, disability, veterans' status, religion, sexual orientation, color or national origin. Any suggestions as to how to further such a positive and open environment in this class will be appreciated and given serious consideration. If you are a person with a disability and anticipate needing any type of accommodation in order to participate in this class, please advise me and make appropriate arrangements with the Office of Disability Services (304.293.6700).

Academic Integrity:

The integrity of the classes offered by any academic institution solidifies the foundation of its mission and cannot be sacrificed to expediency, ignorance, or blatant fraud. Therefore, I will enforce rigorous standards of academic integrity in all aspects and assignments of this course. For the detailed policy of West Virginia University regarding the definitions of acts considered to fall under academic dishonesty and possible ensuing sanctions, please see the Student Conduct Code at http://studentlife.wvu.edu/office_of_student_conduct/student_conduct_code. Should you have any questions about possibly improper research citations or references, or any other activity that may be interpreted as an attempt at academic dishonesty, please see

Assignment Summary:

me before the assignment is due to discuss the matter.

Assignment	Due Date
WEEKS 1-2: Module 1	
Read Wind, Sand, and Stars	End of Week 1
Post your response to both of the following:	End of Week 2
At the end of Chapter 5, Saint-Exupéry recalls the home he grew up in and his former nanny. What is the importance of this passage to themes of fear and courage?	
Discussion Question B:	
Saint-Exupéry ends his work by saying "Comrades of the air! I call upon you to bear me witness. When have we felt ourselves happy men" (p. 224). How does this relate to his idea that only a special person flies for a career?	

Assignment	Due Date
Reply to at least two classmates' responses to the Unit's discussion questions.	
Essay One: Reflective Essay For this assignment, reflect on Saint-Exupéry's experience of flight and flying. Specifically, address the following questions: (a) The relationship between fear and courage is presented a number of times in De Saint-Exupéry's travels and experiences. What is this relationship, and where is it displayed in this book? (b) In light of the relationship between fear and courage, do you agree with Saint-Euxpéry's claims that only a special kind of person flies for a career? Answers to these questions should be presented in the format of a reflective essay in which you focus on Saint-Exupéry's position as the basis for formulating your own position on the relationship between fear and courage and those who fly for a career. The essay should be 2-3 pages in length, word-processed, and double-spaced.	End of Week 2
Aviation Technology Journal As you read the selections for the course, identify 10 technologies that have either made aviation possible or improved aviation. For each, develop a 1-2 page journal entry that does the following: (a) identifies the technology, (b) notes the selection in which it is mentioned or discussed, (c) describes the technology as it is presented in the selection, and (d) gives the current state of the technology (i.e. it is no longer used because X, it has been redeveloped into X, it is now key to X, etc.). Conclude your journal with a 1-2 page entry that identifies the technology you feel is most important to aviation. Be sure to title each journal entry and assign it page numbers. Your journal should also include a Table of Contents with this information. Journal entries should be word- processed and in paragraph format, though they do not necessarily have to be in essay format.	Begin Week 1

Assignment	Due Date
WEEKS 3-4: Module 2	
Read North to the Orient	End of Week 3
	End of Week 3
Post your response to the following:	
The Lindberghs were meticulous in their flight preparations, always focusing on safety. How does this compare to Saint-Exupery? And how does it change the emotions tied to a flight?	
Reply to at least two classmates' responses to the Unit's discussion questions.	
Essay Two: Narrative Essay	End of Week 4
In North to the Orient, Anne Morrow Lindbergh closes chapter one by writing "And for us, setting our over unknown country, there would be those austere and breath-taking moments when, looking down on inaccessible territory, one realizes that no one has seen that spot before" (p. 7). Drawing on your own flight experiences, develop a narrative essay that describes one of your most memorable moments. As you write, think about what made the moment so memorable—was it a moment of wonder, fear, and courage? What is it about this moment in particular out of all others that makes it so memorable? This essay should be 3-4 pages in length, word-processed, and double-spaced.	
Aviation Technology Journal	
As you read the selections for the course, identify 10 technologies that have either made aviation possible or improved aviation. For each, develop a 1-2 page journal entry that does the following: (a) identifies the technology, (b) notes the selection in which it is mentioned or discussed, (c) describes the technology as it is	

Assignment	Due Date
presented in the selection, and (d) gives the current state of the	
technology (i.e. it is no longer used because X, it has been	
redeveloped into X, it is now key to X, etc.). Conclude your journal	
with a 1-2 page entry that identifies the technology you feel is	
most important to aviation. Be sure to title each journal entry and	
assign it page numbers. Your journal should also include a Table of	
Contents with this information. Journal entries should be word-	
processed and in paragraph format, though they do not necessarily	
have to be in essay format.	
WEEKS 5-6: Module 3	
Read Lindbergh	End of Week 5
	End of Week 6
Post your response to the following:	
Identify and discuss one of Lindbergh's personal traits that helped	
contribute to him becoming one of the greatest figures in the 20th	
century, and more particularly in the field of aviation.	
questions.	
Essay Three: Expository Essay	End of Week 6
Charles Lindbergh is considered one of the greatest figures in	
twentieth century American history. Many even consider him to	
be the first American celebrity. Based on <i>Lindbergh</i> and drawing	
from other outside sources, develop a timeline of 10 cultural	
events and historical developments that helped to "create"	
Lindbergh as a great figure during this time period. Using select	
entries from your timeline, develop an expository essay that	

Assignment	Due Date
argues what particular qualities, events, and developments aligned to allow Lindbergh to accomplish such great feats in flying and to leave such an indelible mark on history. This paper should be 3-5 pages in length, word-processed, and double-spaced. Be sure to include a References page for any outside sources you may use.	
Aviation Technology Journal	
As you read the selections for the course, identify 10 technologies that have either made aviation possible or improved aviation. For each, develop a 1-2 page journal entry that does the following: (a) identifies the technology, (b) notes the selection in which it is mentioned or discussed, (c) describes the technology as it is presented in the selection, and (d) gives the current state of the technology (i.e. it is no longer used because X, it has been redeveloped into X, it is now key to X, etc.). Conclude your journal with a 1-2 page entry that identifies the technology you feel is most important to aviation. Be sure to title each journal entry and assign it page numbers. Your journal should also include a Table of Contents with this information. Journal entries should be word-processed and in paragraph format, though they do not necessarily have to be in essay format.	
WEEKS 7-8: Module 4	
Read Rocket Boys	End of Week 7
Post your response to the following:	End of Week 7
As space travel becomes less restricted and more open to businesses and private citizens, what impact will this have on the status of aviators in our culture?	
Reply to at least two classmates' responses to the Unit's discussion	

Assignment	Due Date
questions.	
Essay Four: Historical Essay	End of Week 8
In <i>Rocket Boys</i> , Homer Hickam moves us, as readers, from dreams of flying to dreams of flying space. His "experiments" with rockets were founded in both technological and scientific developments resulting from the pioneering flights of pilots such as Saint- Exupéry, Lindbergh, and many other aviators. Select a technological or scientific development and develop a historical essay that traces its development and evolution. Conclude the essay with a discussion of how your choice made space flight possible.	
Aviation Technology Journal	
As you read the selections for the course, identify 10 technologies that have either made aviation possible or improved aviation. For each, develop a 1-2 page journal entry that does the following: (a) identifies the technology, (b) notes the selection in which it is mentioned or discussed, (c) describes the technology as it is presented in the selection, and (d) gives the current state of the technology (i.e. it is no longer used because X, it has been redeveloped into X, it is now key to X, etc.). Conclude your journal with a 1-2 page entry that identifies the technology you feel is most important to aviation. Be sure to title each journal entry and assign it page numbers. Your journal should also include a Table of Contents with this information. Journal entries should be word-processed and in paragraph format, though they do not necessarily have to be in essay format.	
Submit Research Project	End of Week 8
The reading selections for the course focus on aviation pioneers. That we continue to write about aviation, and more particularly aviators, demonstrates flying's place in our culture as an activity of importance. If we look across the world of humanities, including	

Assignment	Due Date
film, art, and other forms of artistic expression, the aviator—such as those studied in this course—occupies our interest. As with Lindbergh, Earhart, and others, aviators are often considered some of our culture's greatest heroes. Drawing on the works studied for this course and other outside sources, develop an argumentative essay that explores why aviators continue to be portrayed as heroes. You may include discussions of other famous aviators, real or imagined, to develop your answer. Consider such factors as personal attributes or qualities, science and technology, and cultural context in the development of your essay. Conclude your essay with your own thoughts on whether aviators should be portrayed as heroes. This paper should be 5-7 pages in length, word-processed, and double-spaced. Be sure to include a	
references page and adhere strictly to APA format.	
Submit Aviation Technology Journal As you read the selections for the course, identify 10 technologies that have either made aviation possible or improved aviation. For each, develop a 1-2 page journal entry that does the following: (a) identifies the technology, (b) notes the selection in which it is mentioned or discussed, (c) describes the technology as it is presented in the selection, and (d) gives the current state of the technology (i.e. it is no longer used because X, it has been redeveloped into X, it is now key to X, etc.). Conclude your journal	End of Week 8
with a 1-2 page entry that identifies the technology you feel is most important to aviation. Be sure to title each journal entry and assign it page numbers. Your journal should also include a Table of Contents with this information. Journal entries should be word- processed and in paragraph format, though they do not necessarily have to be in essay format.	

<u>Course:</u> AVIA 489 Aviation Law

School/Department:

College of Business, Humanities & Social Sciences, Department of Aviation

Semester: Fall 2015

<u>Course Format and Credit Hours:</u> 3 credit hour eCampus online course

Prerequisites:

Enrollment in this course requires the approval of the aviation program coordinator.

Instructor:

John Sabel, <u>ivsabel@mail.wvu.edu</u>, 412-512-7846 (During normal business hours, Eastern Time)

Schedule:

8 week web/online, with weekly sessions. Each session begins at 12:01 a.m. on Sunday and ends at 11:59 p.m. on Saturday.

<u>Location:</u> Web/online

<u>Office:</u> COBE 319

Office Hours: M-F 8:00-4:30

<u>Course Description</u>: This course provides an overview of the basic principles of law within the US legal system, with an emphasis on the application of those principles to aviation transactions and activities.

Course Objectives:

Students will learn how to apply their knowledge of legal concepts to recognize and avoid common legal pitfalls in the aviation environment. Aviation managers, pilots, mechanics, and aircraft owners & operators will be able to apply their practical knowledge and understanding of basic legal concepts to their aviation careers. Areas of emphasis include administrative law; aircraft accidents; aircraft transactions; airports, airspace and aviation security; and labor and employment law.

Expected Learning Outcomes:

Upon completion of this course the student should be able to:

- Demonstrate legal knowledge and perspective on how the legal system operates in relationship to aviation activities and transactions. [Bloom's: Application]
- Critique contractual issues related to aircraft rentals and flight training, as well as the various insurance options available. [Bloom's: Evaluation]
- Discuss the requirements and obligations when interacting with governmental agencies such as the Federal Aviation Administration (FAA) and the National Transportation Safety Board (NTSB). [Bloom's: Comprehension]
- Investigate liens and contract law principles. [Blooms: Analysis]
- Explain the process of purchasing and insuring an aircraft. [Bloom's: Analysis]

<u>Text</u>:

Hamilton, J. Scott, *Practical Aviation Law* (2011), 5th edition, Aviation Supplies and Academics, Inc., ISBN 978-1-56027-763-7.

Note: There is an optional workbook, entitled *Practical Aviation Law Workbook* (Fifth Edition) that accompanies the textbook. It is not necessary to purchase this workbook.

Grading:

Your coursework will be evaluated according to the point distribution chart shown below:

Activity	Points	
Weekly assignments (60 points x 7)	420	(26%)
Weekly exams (80 points x 7)	560	(35%)
Weekly discussion board (50 points x 7)	350	(22%)
Final exam (270 points x 1)	270	(17%)
Total Points	1600	

Grade Scale:

At the end of the course, a letter grade will be assigned based upon the following grading scale:

Points Earned	Grade
1440-1600	А
1280-1439	В
1120-1279	С

960-1119	D
959 & below	F

Grading Policy:

Discussion posts will be graded on a student's meaningful contribution to the discussion. A post will be considered acceptable if it provides additional information, clarifies a question, provides a different perspective, raises a question, or in some other way contributes to the overall discussion. Simply agreeing with another student's post is not considered acceptable.

Participation (Attendance) Policies:

Each week students will log on to the course on the eCampus website and complete the weekly assignment by Wednesday of that week. Each student will post his/her response to the discussion question by Thursday and respond to at least one other post by the end of the week. The additional elements of the discussion questions and responses are designed to help students work through the course material as well as interact with the instructor and other students.

Discussion questions are critical for your grade.

Late Assignments:

Weekly activities include reading assignments, review questions, a quiz and discussion board participation. All module activities are due no later than the last day of the module week. Late work will not be accepted without prior approval and for emergency reasons only. Please do not wait until the last minute to participate in the weekly discussion board, as this is an interactive activity between you and you classmates.

Incomplete Grades:

WVU Tech and the Department discourages grades of *Incomplete*, however, understands that there are certain circumstances under which a grade of *Incomplete* is appropriate. Grades of *Incomplete* are given at the discretion of the instructor, but normally are granted only if a student has acceptably completed 80% of the coursework prior to the last day of the class. The student must request a grade of *Incomplete* prior to the last day of the course. Such a request should include a list of missing assignments and a date for submission of missing assignments no later than sixty (60) days from the last date of the course. If approved, the student and instructor will complete a Statement of Completion that will act as a contract for the completion of coursework. Failure to complete the course requirements within the time allowed causes the grade of *Incomplete* "I" to default to an "F."

The grade of I (Incomplete) will be given only when the instructor believes that the coursework is unavoidably incomplete.

1. Students must complete unfinished work by the end of the next semester enrolled (Fall, Spring, Summer) for any course in which they have received an incomplete.

2. The student is responsible for contacting the instructor of record to develop a written plan to complete the work.

Inclusivity Statement

West Virginia University is committed to social justice. I concur with that commitment and expect to maintain a positive learning environment based upon open communication, mutual respect, and non-discrimination. Our University does not discriminate on the basis of race, sex, age, disability, veterans' status, religion, sexual orientation, color or national origin. Any suggestions as to how to further such a positive and open environment in this class will be appreciated and given serious consideration.

If you are a person with a disability and anticipate needing any type of accommodation in order to participate in this class, please advise me and make appropriate arrangements with the Office of Disability Services (304.293.6700).

Academic Integrity

The integrity of the classes offered by any academic institution solidifies the foundation of its mission and cannot be sacrificed to expediency, ignorance, or blatant fraud. Therefore, I will enforce rigorous standards of academic integrity in all aspects and assignments of this course. For the detailed policy of West Virginia University regarding the definitions of acts considered to fall under academic dishonesty and possible ensuing sanctions, please see the Student Conduct Code at

http://studentlife.wvu.edu/office_of_student_conduct/student_conduct_code. Should you have any questions about possibly improper research citations or references, or any other activity that may be interpreted as an attempt at academic dishonesty, please see me before the assignment is due to discuss the matter.

Assignment Summary:

Assignment	Due Date
WEEK #1	
Read Chapters 1, 2 & 3	
Participate in Discussion Board, including replies to at least two classmates' responses to the week's discussion questions.	
Submit answers to module 1 assignment questions	

Assignment	Due Date
Complete module 1 quiz	
<u>WEEK #2</u>	
Read Chapters 4 & 5	
Participate in Discussion Reard, including replies to at least two	
classmates' responses to the week's discussion questions.	
Submit answers to module 2 assignment questions	
Complete module 2 quiz	
WEEK #3	
Read Chapters 6 & 7	
Participate in Discussion Board, including replies to at least two	
classmates' responses to the week's discussion questions.	
Submit answers to module 3 assignment questions	
Complete module 3 quiz	
MEEK #4	
Read Chanters & Q. & 10	
neau Chapters 0, 3, & 10	
Participate in Discussion Board, including replies to at least two	
classmates' responses to the week's discussion questions.	
Submit answers to module 4 assignment questions	
Complete module 4 quiz	

Assignment	Due Date
WEEK #5	
Read Chapters 11 & 12	
Participate in Discussion Board, including replies to at least two classmates' responses to the week's discussion questions.	
Submit answers to module 5 assignment questions	
Complete module 5 quiz	
<u>WEEK #6</u>	
Read Chapters 13, 14 & 15	
Participate in Discussion Board, including replies to at least two classmates' responses to the week's discussion questions.	
Submit answers to module 6 assignment questions	
Complete module 6 quiz	
<u>WEEK #7</u>	
Read Chapters 16 & 17	
Participate in Discussion Board, including replies to at least two classmates' responses to the week's discussion questions.	
Submit answers to module 7 assignment questions	
Complete module 7 quiz	
WEEK #8 Review chapters 1-17 and all previously-submitted assignments	

Assignment	Due Date
Complete comprehensive final exam	
Complete course evaluation	

MEMORANDUM

TO: WVU Faculty Senate Curriculum Committee

FROM: Dr. Stephen W. Brown, Dean

DATE: September 23, 2014

RE: Aviation Management Cooperative Agreement

I am writing in response to questions from the Senate Curriculum Committee regarding admission of students into the proposed WVU Tech Aviation Management Program. Since flight training is a central component and will require a partner who will provide the professional field experience, WVU Tech will not admit students into the program until an appropriate agreement is in place. Discussions are currently in progress with Flight Safety International, one of the nation's premiere flight academies, and are expected to be completed in early 2015. It is our intent once the agreement is finalized to launch the new program in fall 2015, providing that a partnership agreement is in place and the program is approved by the Senate and the WVU Board of Governors. Thank you.

cc: Dr. Nicholas Perna Dr. E. James Harner

MEMORANDUM

TO: WVU Faculty Senate Curriculum Committee

FROM: Dr. Stephen W. Brown, Dean

DATE: October 7, 2014

RE: Aviation Management Online Courses

In response to questions from the WVU Faculty Senate Curriculum Committee regarding availability of online business and similar classes, I am writing to affirm that the courses enumerated in the progression plan for the Aviation Management program will be offered online. More specifically, BCOR 350, 370, MANG 330, 350, and 422 have been online for several years and will continue be offered as needed for the Aviation Management Program. Thank you

Cc: Dr. Nicholas Perna Dr. E. James Harner To: Faculty Senate Executive Committee From: Lena Maynor, Chair, General Education Curriculum Oversight Committee Date: October 27, 2014 Re: GEC Actions

The GEC Oversight Committee met on September 29, 2014 and recommends the following courses for Faculty Senate approval:

Title	Course Type	GEC Objectives
WGST 260: Perspectives on Lesbian, Gay, Bisexual,		4. Contemporary Society
Transgender and Queer (LGBTQ) Studies	New GEC	7. American Culture
ENGL 238: Literature of Place	New GEC	5. Artistic Expression

To: Faculty Senate Executive Committee From: Lena Maynor, Chair, General Education Curriculum Oversight Committee Date: October 27, 2014 Re: GEC Audits

The GEC Oversight Committee met on September 29, 2014 and passed the following courses for GEC Audit:

Title	Audit Type	GEC Objectives
		3. The Past and Its Traditions
HIST 153: Making Modern Amrca:1865-Prsnt	GEC Audit	7. American Culture
CHEM 115: Fundamentals of Chemistry	GEC Audit	2B. Basic Math & Scientific Inquiry
CHEM 116: Fundamentals of Chemistry	GEC Audit	2B. Basic Math & Scientific Inquiry




WELLWVU Office of Wellness & Health Promotion aims to shift the culture on campus towards one that embraces wellbeing by providing students with tools and environments that help make the healthy choice the easy choice. In accordance with promising practices in violence prevention as outlined in the Campus SaVE Act, we have adopted the Green Dot model as our violence prevention strategy. Green Dot, etc. is a non-profit organization built on the premise that we can measurably and systematically reduce violence within any given community.

The Green Dot etc. Strategy

(as described on their website: https://www.livethegreendot.com/gd_strategy.html)

"The Green Dot etc. strategy is a comprehensive approach to violence prevention that capitalizes on the power of peer and cultural influence across all levels of the socio-ecological model. Informed by social change theory, the model targets all community members as potential bystanders, and seeks to engage them, through awareness, education, and skills-practice, in proactive behaviors that establish intolerance of violence as the norm, as well as reactive interventions in high-risk situations – resulting in the ultimate reduction of violence. Specifically, the program targets influential and respected individuals from across community subgroups. The goal is for these groups to engage in a basic education program that will equip them to integrate moments of prevention within existing relationships and daily activities. By doing so, new norms will be introduced and those within their sphere of influence will be significantly influenced to move from passive agreement that violence is wrong, to active intervention.

Conceptually, Green Dot etc. is comprised of three basic components:

A single choice in one moment in time to use your voice, actions or choices to make one small corner of the world safer.

Green Dot etc. is built on the premise that in order to measurably reduce the perpetration of powerbased personal violence, a cultural shift is necessary. In order to create a cultural shift, a critical mass of people will need to engage in a new behavior or set of behaviors that will make violence less sustainable within any given community. The "new behavior" is a Green Dot.

A shared vision that creates momentum through the power of a common language and purpose.

In isolation, even the most determined single Green Dot can dissolve into silent resignation when faced with a task as daunting as changing our culture. The power of Green Dot is the momentum that can be created and sustained when individuals see themselves in connection with others as a part of something ultimately bigger than the sum of its parts.

A social movement that harnesses the power of peer influence and individual bystander choices to create lasting culture change resulting in the ultimate reduction of power-based personal violence.

Power-based personal violence happens to such a staggering degree that the only workable solution must involve a broad-based, good ole' fashioned social movement. Each significant stride in human rights has been fueled by and built upon a social movement, consisting of enough individuals simply raising their voices saying, "This is no longer acceptable. Today is the day we reclaim our fundamental right to something better." One Green Dot at a time, this is our moment in history to reclaim our right to live free of violence and fear of violence."

The Green Dot program at WVU has three main components. First, Social Marketing messages targeting the broader population increase awareness of the program and influence the social norm of standing up against violence for those who have been trained in Green Dot. Second, anyone in the community can attend a Green Dot Overview Speech. The centerpiece of the Green Dot Program, this presentation will help lay out the case for getting bystanders involved to solve the problem of violence in our community as well as establish options for bystanders who are willing to help but are not sure what to do. This is not a presentation that is long and brimming with boring statistics; it's fun, fast-paced, and takes less than an hour. Athletics teams or other groups on campus can make a request for an over

The second component of Green Dot is the Bystander Training. In it, we'll cover early warning signs of various kinds of violence, strategies for intervening to help keep others safe, skill building and communication, bystander dynamics, and lots of experience-based practice. This 5 hour training is more demanding than the Overview Speech, but participants in the Green Dot Bystander Training will be the best prepared to stop violence at WVU.

To schedule an Overview Speech or Bystander Training for your Athletic team, class or organization, please complete the <u>Wellness Program Request form</u> or contact the Office of Wellness & Health Promotion 304-293-5054, or Alison Tartaglia <u>Alison.tartaglia@mail.wvu.edu</u>.



Department of Justice, Office of Violence Against Women

Campus Safety Grant

(Sexual Assault, Domestic Violence/Relationship Violence and Stalking)

10/2013 to 9/2016

1. Coordinated Campus Response

a. Members from throughout the campus and community charged with advising on policy, developing protocols and ensuring appropriate services and advocacy for victims on campus.

b. Advocacy- through our community partner (RDVIC), development of a specific subset of volunteers that is trained on both the usual information related to assisting a victim navigate the medical and legal system, with the addition of information related to navigating the University processes and system. Particular attention is being paid to recruiting graduate students.

2. Prevention Education

a. Online module for all incoming students

b. Ongoing programming (including defining consent, self-defense, how to support a peer who has been victimized, risk reduction strategies)

c. Bystander Education

3. Law Enforcement Training

a. responding to victims of power-based personal violence with an emphasis on best practices and not re-traumatizing victims.

4. Judicial Conduct Training

a. Training specific to working with victims of power-based personal violence and the processes of Title IX.

Alison M. Tartaglia, MSPH, DrPH (c), Health Education Specialist WELLWVU, Office of Wellness and Health Promotion Project Coordinator, Campus Safety Grant <u>alison.tartaglia@mail.wvu.edu</u> 304-293-3571





