

**Appendix B**  
**Course Review Outline 2014-2015**

AVSC100 Private Pilot Flight						
AABI Criteria	Learning Outcome	Measurement	Person Responsible	Assessment Timeline	Assessment Results	Use of Assessment Results to Improve Learning
f. engage in and recognize the need for life-long learning	The student will learn about the importance of recurrent personal and/or professional aviation education as a means to increase individual/industry safety.	During the end-of-course stage flight check, the student performs the applicable tasks at a level that exceeds FAA Private Pilot Practical Test Standard.	Flight Instructor/Chief Instructor	Annual Spring 2015		Stage check and FAA Practical Test Results will be reviewed to locate gaps in student training, review training procedures with instructional staff, and correct deficiencies in training delivery and/or testing procedures.
h. use the techniques, skills, and modern technology necessary for professional practice	The student will obtain knowledge and proficiency with online and manual flight planning resources, aircraft systems, and ATC resources.	Student passes the FAA Practical Test on the first attempt.				
j. apply pertinent knowledge in identifying and solving problems	The student will learn to detect and evaluate in-flight problems, choose and apply a corrective action, determine whether the desired outcome was					

AVSC105 Private Pilot Ground School						
AABI Criteria	Learning Outcome	Measurement	Person Responsible	Assessment Timeline	Assessment Results	Use of Assessment Results to Improve Learning
		<p>The student will demonstrate proficiency during oral discussion and/or written quizzing.</p> <p>The student will achieve a minimum 80% score on all stage exams and the course final exam, and pass the FAA Knowledge Test on the first attempt.</p>	Ground Instructor/Chief Instructor	Semester	<p>First-time pass rate on stage exams and final exam exceeds 80%.</p> <p>First-time pass rate on FAA Knowledge Test exceeds 83%.</p>	<p>Stage check and FAA Knowledge Test Results will be reviewed to locate gaps in student training, review training procedures with instructional staff, and correct deficiencies in training delivery and/or testing procedures.</p>
d. make professional and ethical decisions	The student will learn about the use of decision-making strategies and how these support pilot professionalism.					
f. engage in and recognize the need for life-long learning	The student will learn about the importance of recurrent personal and/or professional aviation education as a means to increase individual/industry safety.					
	achieved, and evaluate whether further action is necessary.					

AVSC200 Instrument Pilot Flight						
AABI Criteria	Learning Outcome	Measurement	Person Responsible	Assessment Timeline	Assessment Results	Use of Assessment Results to Improve Learning
e. communicate effectively, using both written and oral communication skills	The student will learn proper oral and written communication methods with appropriate personnel during ground and flight operations. He/she will learn to construct and execute written clearances and flight plans.	During stage checks the student conducts the applicable tasks at a level that meets or exceeds FAA Instrument Rating Practical Test Standard.	Flight Instructor/Chief Instructor	Annual Spring 2015		Stage check and FAA Practical Test Results will be reviewed to locate gaps in student training, review training procedures with instructional staff, and correct deficiencies in training delivery and/or testing procedures.
h. use the techniques, skills, and modern technology necessary for professional practice	The student will obtain knowledge and proficiency with online and manual flight planning resources, aircraft systems, and ATC resources.	Student passes the FAA Practical Test on the first attempt.	Flight Instructor/Chief Instructor	Annual Spring 2015		
j. apply pertinent knowledge in identifying and solving problems	The student will learn to detect and evaluate in-flight problems, choose and apply a corrective action, determine whether the desired outcome was achieved, and evaluate whether further action is necessary.		Flight Instructor/Chief Instructor	Annual Spring 2015		

AVSC211 Commercial Pilot Ground School						
AABI Criteria	Learning Outcome	Measurement	Person Responsible	Assessment Timeline	Assessment Results	Use of Assessment Results to Improve Learning
a. apply mathematics, science, and applied sciences to aviation-related disciplines	The student will learn how the principles of mathematics, physiology, linguistics, physics, psychology, and engineering are relevant to commercial/for-hire ground and flight operations.	The student will demonstrate proficiency during oral discussion and/or written quizzing.	Ground Instructor/Chief Instructor	Annual Spring 2015		Stage check and FAA Knowledge Test Results will be reviewed to locate gaps in student training, review training procedures with instructional staff, and correct deficiencies in training delivery and/or testing procedures.
b. analyze and interpret data	The student will learn to select, obtain, analyze, interpret and act on data relevant to single-pilot commercial/for-hire flight operations.	The student will achieve a minimum 80% score on all stage exams and the course final exam, and pass the FAA Knowledge Test on the first attempt.				
g. assess contemporary issues	The student will learn proper oral and written communication methods with appropriate personnel during ground and flight operations. He/she will learn to construct and execute written clearances and flight plans to conduct commercial/for-hire operations.					
i. assess the national and international aviation environment	The student will learn to use multiple resources (print, internet, personnel) to obtain knowledge of evolving aviation environments.					

AVSC212 Instrument Pilot Ground School						
AABI Criteria	Learning Outcome	Measurement	Person Responsible	Assessment Timeline	Assessment Results	Use of Assessment Results to Improve Learning
		The student will demonstrate proficiency during oral discussion and/or written quizzing.	Ground Instructor/Chief Instructor	Annual Spring 2015		Stage check and FAA Knowledge Test Results will be reviewed to locate gaps in student training, review training procedures with instructional staff, and correct deficiencies in training delivery and/or testing procedures.
		The student will achieve a minimum 80% score on all stage exams and the course final exam, and pass the FAA Knowledge Test on the first attempt.				
g. assess contemporary issues	The student will understand and apply knowledge of current and historical regulations governing flight operations.					
i. assess the national and international aviation environment	The student will learn to use multiple resources (print, internet, personnel) to obtain knowledge of evolving aviation environments.					
j. apply pertinent knowledge in identifying and solving problems						

AVSC300 Commercial Pilot Flight						
AABI Criteria	Learning Outcome	Measurement	Person Responsible	Assessment Timeline	Assessment Results	Use of Assessment Results to Improve Learning
a. apply mathematics, science, and applied sciences to aviation-related disciplines	The student will learn how principles of mathematics, physiology, linguistics, physics, psychology, and engineering are relevant to ground and flight operations.	During stage checks the student conducts the applicable tasks at a level that meets or exceeds FAA Commercial Pilot Practical Test Standard.  Student passes the FAA Practical Test on the first attempt.	Flight Instructor/ Chief Instructor	Annual Spring 2015	First-time pass rate on stage check flight tests and exceeds 80%.  First-time pass rate on FAA Commercial Pilot Practical Test is 88%.	Practical Test Results will be reviewed to locate gaps in student training, review training procedures with instructional staff, and correct deficiencies in training delivery and/or testing procedures.
b. analyze and interpret data	The student will learn to obtain, analyze, interpret and act on data relevant to commercial flight operations.					
h. use the techniques, skills, and modern technology necessary for professional practice	The student will obtain knowledge and proficiency with online and manual flight planning resources, aircraft systems, and ATC resources.					

AVSC303 Flight Instructor Ground School						
AABI Criteria	Learning Outcome	Measurement	Person Responsible	Assessment Timeline	Assessment Results	Use of Assessment Results to Improve Learning
a. apply mathematics, science, and applied sciences to aviation-related disciplines	The student will learn how principles of mathematics, physiology, linguistics, physics, psychology, and engineering are relevant to ground and flight operations.	The student will demonstrate proficiency during oral discussion and/or written quizzing.	Ground Instructor/Chief Instructor	Semester	First-time pass rate on stage tests and final exam exceeds 80%.  First-time pass rate on FAA FOI and FIA Knowledge Tests exceeds 95%.	Knowledge Test Results reviewed to locate gaps in student training, review training procedures with instructional staff, and correct deficiencies in training delivery and/or testing procedures.
d. make professional and ethical decisions	The student will learn about the use of decision-making strategies and how these support instructor professionalism.	The student will achieve a minimum 80% score on all stage exams and the course final exam, and pass the FAA Knowledge Tests on the first attempt.				
e. communicate effectively, using both written and oral communication skills	The student will learn to teach proper oral and written communication methods with appropriate personnel during commercial/for-hire ground and flight operations.					
g. assess contemporary issues	The student will understand and apply knowledge of current and historical regulations governing flight operations.					

AVSC307 Air Carrier Operations	The goal of this course is to have 80% of the students complete the course with a 76% or better. This course was evaluated by methods of in-class quizzes, presentations, and participation in a mock stock-trading competition.					
AABI Criteria	Learning Outcome	Measurement	Person Responsible	Assessment Timeline	Assessment Results	Use of Assessment Results to Improve Learning
a. apply mathematics, science, and applied sciences to aviation-related disciplines	<b>1. The student will develop an understanding of the history of commercial air transportation from the early airmail service, through deregulation.</b>	Successful completion of two tests that stress important developments of technology, regulation, and the consequences of airline deregulation.	TBD	Annual Spring 2015		



<p>e. communicate effectively, using both written and oral communication skills</p>	<p><b>2. The students will demonstrate the ability to research and work in teams and effectively communicate orally by presenting a report to the class using PowerPoint slides.</b></p>	<p>Classroom presentations by groups of three (ideally) or four students. Each student was required to prepare and present an equal portion of the project.</p>	<p>TBD</p>	<p>Annual Spring 2015</p>		<p>Based on past results there will only be minor adjustments to the detail rubric and the topics that need to be covered.</p>
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<p>d. make professional and ethical decisions</p> <p>g. assess contemporary issues</p>	<p><b>3. The students will distinguish key business elements that commercial airline managers and staff encounter when making decisions.</b></p>	<p>Successful completion of an exam that focuses on the different areas of concern with commercial airline businesses.</p>		<p>Annual Spring 2015</p>		<p>Based on past results of this portion of the course more emphasis is needed on basic management concepts (fleet planning, marketing, advertising, forecasting, etc.).</p>
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AVSC310 Aviation Safety						
AABI Criteria	Learning Outcome	Measurement	Person Responsible	Assessment Timeline	Assessment Results	Use of Assessment Results to Improve Learning
d. make professional and ethical decisions  e. communicate effectively, using both written and oral communication skills	<b>1. The student will develop an understanding of aviation human factors and crew resource management by studying examples of airline accidents.</b>	Successful completion of an exam that requires the student to understand CRM and human factors concepts and recognize the results of positive and negative application of these practices as demonstrated by case study comparisons.	TBD	Annual Spring 2015		In the past, the test questions were analyzed to ensure that they were clearly focused on the subject matter. There were two sections of this course. The last class average for both sections on this test was 86%. The students were given a multiple-choice test. The results indicate that the students had an understanding of human factors and CRM concepts. Future exams may involve different case studies if they can better elucidate the topics.
	<b>2. The students will recognize the factors involving runway safety and proper use of runway markings, airport diagrams, and ATC communications and by studying examples of airline accidents.</b>	2. Successful completion of an exam and in-class assignment that demonstrates understanding airport signs and marking, recognizes concepts of runway incursions and how to prevent them, and recalling the application of these practices as demonstrated by accident case study comparisons. Additionally, several AOPA on-line courses were assigned and completion certificates	TBD	Annual Spring 2015		The RW Safety /Physiology test questions will be analyzed to ensure that they were clearly focused on the subject matter. Based on the past success of the exam, there may only be minor adjustments to the exam. Future exams may involve different case studies if they can better elucidate the topics.

	<p><b>3. The student will recognize the role human physiology plays in aviation safety and study examples of airline accidents in which physiology played a contributing factor.</b></p>	<p>submitted as evidence of learning.</p> <p>3. Successful completion of an exam that requires understanding of the limitation of the human body in the flight environment and ways to mitigate potential problems as demonstrated by case studies of commercial and general aviation accidents.</p>				
<p>b. analyze and interpret data</p> <p>d. make professional and ethical decisions</p>	<p><b>4. The student will understand weather theory, use of weather products, and the critical role that weather plays in all flight decisions and study examples of airline accidents in which weather events played a contributing factor.</b></p>	<p>Successful completion of an exam that tests understanding weather theory, interpretation of weather products, and recognition of critical weather events that could play a significant part in the safety of flight.</p>	TBD	Annual Spring 2015		<p>Based on past results, more emphasis is needed on weather theory and interpreting weather products.</p> <p>The Aviation Science Department implemented a full course on aviation weather (AVSC 210) that will run annually that will reinforce weather concepts, interpretations, and the steps involved in making a go/no-go decision.</p>

AVSC320 Aviation Regulatory Process	At the end of this course, students will understand the development of the United States aviation regulatory process, its current structure, the rule-making process, the appeals process, and ICAO. In addition they will also be exposed to current aviation law as it applies to aviators and operators in the airspace system.					
AABI Criteria	Learning Outcome	Measurement	Person Responsible	Assessment Timeline	Assessment Results	Use of Assessment Results to Improve Learning
c. work effectively on multi-disciplinary and diverse teams						
i. assess the national and international aviation environment	<b>The student will be able to understand how the United States regulatory system fits in with the international regulatory system.</b>	Students will be tested on this material in the final written exam at the end of the semester.	Course instructor	Annual Spring 2015		The test questions will be reviewed and topics will be covered so that 100% of the students understand the material. The assessment will be used to cover this material more thoroughly in subsequent years.
k. apply knowledge of business sustainability to aviation issues						



AVSC400 Instructional Flight						
AABI Criteria	Learning Outcome	Measurement	Person Responsible	Assessment Timeline	Assessment Results	Use of Assessment Results to Improve Learning
d. make professional and ethical decisions	The student will learn about the use of decision-making strategies and how these support instructor professionalism.	During stage checks the student conducts the applicable tasks at a level that meets or exceeds FAA Instrument Rating Practical Test Standard.	Ground Instructor/Chief Instructor	Semester	First-time pass rate on stage exams and final exam exceeds 80%.	Stage check and FAA Knowledge Test Results will be reviewed to locate gaps in student training, review training procedures with instructional staff, and correct deficiencies in training delivery and/or testing procedures.
e. communicate effectively, using both written and oral communication skills	The student will learn to teach proper oral and written communication methods with appropriate personnel during ground and flight operations.	Student passes the FAA Practical Test on the first attempt.				
f. engage in and recognize the need for life-long learning	The student will learn to teach on the importance of recurrent personal and/or professional aviation education as a means to increase individual/industry safety.					
h. use the techniques, skills, and modern technology necessary for professional practice	The student will obtain knowledge and proficiency with online and manual flight planning resources, aircraft systems, and ATC resources.					
j. apply pertinent knowledge in identifying and solving problems	The student will learn to detect and evaluate in-flight problems, choose and apply a corrective action, determine whether the desired outcome was achieved,					

	and evaluate whether further action is necessary.					
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