

AERN 45648 Theory of Flight Instruction, 3 Cr requests ELR course status.

This course is the capstone course for the Flight Technology concentration of the Aeronautics major in the College of Applied Engineering, Sustainability, and Technology.

I. Learning Outcomes

This course provides excellent opportunities for students to fulfill all three learning outcomes.

- a) Connect ideas, concepts, and skills developed at the university with their applications to new and different contexts: Students have a writing assignment on **The Fred Factor**. At the conclusion of the course the student will have demonstrated the knowledge needed to become a professional flight instructor through a series of review board quizzes. These nine quizzes will evaluate the student's knowledge and find weak areas that will need to be addressed before the student completes from the course. Finally, flight instructor candidates will participate in classroom discussion on best practices for explaining aerodynamics in flight that will aid students mastering techniques of handling an aircraft. Additionally classroom discussion will evaluate candidate's knowledge of weather theory and their ability to apply this theory to the feasibility of a flight through weather decision making using weather services.
- b) Demonstrate how this experience has broadened their understanding of the discipline, the world, or themselves as learner: The student will explore different teaching techniques necessary for becoming a professional flight instructor by developing skills through repeated presentations in class and in front of students. This is accomplished by creating lesson plans for the power curve and complex gear and prop systems ground schools that are taught to current students in the flight program. The flight instructor candidates will be critiqued on a number of areas further developing their teaching skills, improving their technique. Additionally, flight instructor candidates will participate in classroom discussion on best practices for explaining aerodynamics in flight that will aid students mastering techniques of handling an aircraft. Additionally classroom discussion will evaluate candidate's knowledge of weather theory and their ability to apply this theory to the feasibility of a flight through weather decision making using weather services.
- c) Reflect on the meaning of the experience for their current and future learning: Students will be given an opportunity to reflect on the meaning of their aviation management capstone experience for their current and future learning through the submission of a final reflection paper that addresses, at a minimum, the following items:
 - a. Which part of the process for course assignments did you put the most effort into? Which part of the process for course assignments do you wish you had spent more time on?
 - b. What was the **most** difficult part of this course? Were there topics/courses that were missing from your previous coursework which could have better prepared you for this class?

- c. What was the biggest problem you encountered during this course? How successful were you in solving that problem? What tools did you use? What might you have done better if experiencing a similar situation in the future?
- d. What did you learn about yourself as an aviation management major (or about aviation management in general) in the process of completing this course?
- e. How does the completion of this course prepare you for future career opportunities?
- f. How do you feel the ideas, concepts and skills developed throughout the course have prepared you for new experiences in aviation management?
- g. How do you feel this course has broadened your understanding of aviation management, the world, or yourself as a learner?

II. Assessment of learning outcomes

The learning outcomes are assessed from papers, review board quizzes, the written and oral flight check ride, a review board and the final reflection paper. Since much of their coursework is student driven, the faculty member will observe the groups during every class and offer suggestions when necessary. Successfully completing each assignment requires out of class work, reflection and problem solving. These all contribute to the learning outcomes.

III. Unit commitment

This proposal has been developed with input from key faculty members. The importance of meeting these expectations was presented by college faculty members. Faculty members have expressed an understanding of these criteria and assessments to accreditation of the university and the college. At present there is only one section of this course. The basic data sheet/ course catalog update sheets will explicitly state that this is an ELR course and faculty members teaching this course will be made aware of the requirements of such courses by the division coordinators.

Experiential Learning Course Proposal Cover Sheet

Program/Department/School Submitting Proposal Aeronautics Date Submitted 20 Aug 14

Contact Person Maureen McFarland E-mail mmcfarl2@kent.edu Phone 330.672.9867

Course Number/Title AERN 45648 Theory of Flight Instruction # of Credits Three (3)

Check one:

- New Proposal Resubmission with Revision (Date of Original Submission: _____)
 Renewal of Approved ELR Section

Check one:

- Request for Section and Full Course Approval Request for Full Course Approval Only
 Request for Section Approval Only

Select Appropriate Experiential Learning Category/Categories: [] Civic Engagement,
[] Creative/Artistic Activities, [X] Practical Experiences, [X] Research, [] Study Abroad/Away

INFORMATION NEEDED FOR SECTION APPROVAL ONLY:

Faculty Member of Record: _____

CRN: _____ Section #: _____ Semester/Yr: _____/_____

APPROVAL ROUTING: Check one and obtain associated signatures

Kent Campus and Regional Campus- FULL-COURSE approval if housed on Kent Campus

Chair/Director: Maureen R. McFarland Date: 21 Aug 2014

Date Approved by College Curriculum Committee: 10 Sept 2014

Dean: Robert G. Sines Date: 11 Sept 2014

Kent Campus and Regional Campus - Section Approval ONLY

Chair/Director: _____ Date: _____

URCC College Representative: _____ Date: _____

RC ONLY:

Asst. or Assoc. Dean: _____ Date: _____

REGIONAL COLLEGE SECTION AND FULL-COURSE Approval

Asst. or Assoc. Dean: _____ Date: _____

RC Assoc. Provost & Dean: _____ Date: _____

SECTION ONLY:

URCC College Representative: _____ Date: _____



Name: Maureen R. McFarland

Submission Date: 9/9/2014



Organization: Flight & Air Traffic Control

Course Catalog Update[<< Go back to Course Catalog Update form](#)**Print****STU0004****Course Catalog Update Information:****Reference Number:** CCU007597**Date:** 09-SEP-14**Level:** of**Currently On The Worklist Of:** , unassigned**Owner:** Office of Curriculum Services, 330-672-8558 or 330-672-8559, curriculum@kent.edu

Basic Course Data		
Change type: Revise		
Faculty member submitting this proposal: McFarland		
Requested Effective Term: 201580		
Campus: Kent		
College: AT-College of Applied Engineering, Sustainability and Technology		
Department: AEST-Applied Engineering, Sustainability and Technology		
Course Subject: AERN-Aeronautics		
New Course Subject:		
Course Number: 45648		
New Course Number:		
Course Title: THEORY OF FLIGHT INSTRUCTION		
Title Abbreviation: THEORY OF FLIGHT INSTRUCTION		
Slash Course and Cross-list Information:		
Credit Hours		
Minimum Credit/Maximum Credit: 3 to 3		
Contact Hours: Lecture - Minimum Hours/Maximum Hours: 3 to 3		
Contact Hours: Lab - Minimum Hours/Maximum Hours:		
Contact Hours: Other - Minimum Hours/Maximum Hours:		
Attributes		
Is this course part of the LER, WIC or Diversity requirements: No		
If yes, course attributes: 1. 2. 3.		
Can this course be repeated for credit: No Repeat	Course Limit:	OR Maximum Hours:
Course Level: Undergraduate	Grade Rule: B-Standard letter	
Rationale for an IP grade request for this course (if applicable): An IP is not requested.		
Schedule Type(s): 1. LEC-Lecture 2. 3.		
Credit by Exam: N-Credit by exam-not approved		
Prerequisites & Descriptions		
Current Prerequisite/Corequisite/Catalog Description: Detailed fundamentals of teaching flight and ground instruction and the analysis of flight techniques, in order to meet requirements of FAR's part 61.185(a). Prerequisites: AERN 35040, 35746, 35747 and 45150. Corequisite: AERN 45649.		
Catalog Description (edited): Detailed fundamentals of teaching flight and ground instruction and the analysis of flight techniques, in order to meet requirements of FAR's part 61.185(a). Fulfills experiential learning requirements.		
Prerequisites (edited): AERN 35040, 35746, 35747 and 45150		
Corequisites (edited): AERN 45649		
Registration is by special approval only: No		
Content Information		
Content Outline:		
Content Hours per Course Topic	Topic Description	
2	Human Behavior	
2	The Learning Process	

2	Effective Communication
2	The Teaching Process
2	Planning Instructional Activities
2	Instructor Responsibilities and Professionalism
2	Techniques of Flight Instruction
3	Risk Management
2	Aeronautical Decision Making
3	Regulations
3	Endorsements
3	Practical Test Standards
2	Flight Operations Manual
2	Aerodynamics
2	Weather Fundamentals
2	Airspace
2	Maintenance
2	IACRA (pilot application)
5	Exams and quizzes

[Display/Hide Delimited Course Outline](#)

Total Contact Hours: 90

Textbook(s) used in this course: Aviation Instructors Handbook, FAA-AC-60-14 Practical Test Standards Flight Testing Handbook FARs and AIMS; Sanborn, Mark The Fred Factor, first edition. Printed in the United States of America, Water Brook Press 2004

Writing Expectations: Reflective essay; lesson plans.

Instructor(s) expected to teach: As assigned by Aeronautics

Instructor(s) contributing to content: Palcho, McFarland

Proposal Summary

Explain the purpose for this proposal:

The purpose of this proposal is to designate the course as fulfilling the experiential learning requirement for students in the aviation management area of concentration. As there was no "ELR" designator under the "course attributes" drop down box, LER was chosen to highlight the prospective change. Additionally, the course description was updated and delivery changed to lecture.

Explain how this proposal affects program requirements and students in your unit:

This proposal will present an opportunity for students to fulfill their experiential learning requirement when they apply previously gained knowledge and experience to their responses to real-world aviation management scenarios.

Explain how this proposal affects courses, program requirements and student in other units:

None

Explain how this proposal affects enrollment and staffing:

None

Units consulted (other departments, programs or campuses affected by the proposal):

None

Revisions made to form (if applicable):

- | | |
|--|---|
| <input type="checkbox"/> Course Content | <input type="checkbox"/> Number |
| <input type="checkbox"/> Credit by Exam | <input type="checkbox"/> Prerequisites |
| <input type="checkbox"/> Credit Hours | <input checked="" type="checkbox"/> Schedule Type |
| <input type="checkbox"/> Cross-Listed / Slash | <input type="checkbox"/> Subject |
| <input checked="" type="checkbox"/> Description | <input type="checkbox"/> Title |
| <input type="checkbox"/> Diversity | <input type="checkbox"/> Title Abbreviation |
| <input type="checkbox"/> Grade Rule | <input type="checkbox"/> Writing-Intensive (WIC) |
| <input type="checkbox"/> Liberal Education Requirement (LER) | <input checked="" type="checkbox"/> Other |

Comments (500 Character Maximum):

NOTE: Please do not use the following restricted characters: (~ * / \ --)

Submit

You must click the submit button to submit your catalog update request for approval. After the document is successfully submitted, a printable confirmation page will appear.

Stop Workflow

**AERONAUTICS DIVISION
SCHOOL OF TECHNOLOGY**

Theory of Flight Instruction (TECH 45648)
(To be taken concurrently with Tech 45649)
Fall 2014

Professor: Tim Palcho M.S. Strategic Leadership
CFIAIME, ACR, DPE, AGI
Gold Seal CFI

Class Meeting: Monday, Wednesday, Friday 9:55-10:45am
Class Location: Van Deusen Room 209
Office Location: Van Deusen Room 212F

Office Phone/E-mail: 330-672-1937 / cell 330-256-5132 tpalcho@kent.edu

Office Hours: 2:00pm-3:00pm Monday and Wednesday
All other times by appointment

Course Title, Number, and Description: Theory of Flight Instruction (Tech-45648). Detailed fundamentals of teaching flight and ground instruction and the analysis of flight techniques, to meet the requirements of FAR's 61.185(a).

Required Textbooks:

Aviation Supplies and Academics, Inc.; *Certified Flight Instructor 2014 Test Prep*
Newcastle, WA, ASA. 2014

Aviation Supplies & Academics Inc., *Federal Aviation Regulations/Aeronautical Information Manual*, (2014 Edition) Federal Aviation Administration,

Flight Instructor Practical Test Standards, FAA-S-8081-6C Change 1,2,3,4,&5

U.S. Department of Transportation, Federal Aviation Administration, Flight Standards Service, *Aviation Instructor's Handbook*, FAA-H-8083-9A, U.S. Government Printing Office, Washington, DC. 2009

Kershner, William K.; *The Flight Instructor's Manual*, fourth edition. Ames, IA: Iowa State University Press. 2009

U.S. Department of Transportation, Federal Aviation Administration, various Advisory Circulars, as assigned.

Sanborn, Mark *The Fred Factor*, first edition. Printed in the United States of America, WaterBrook Press 2004

Kent State University Flight Technology Program, training aids and student records, as assigned.

Other Required Material:

May be assigned at the discretion of the teacher.

FAA Knowledge Test Exams:

FOI, FAI completions of FAA tests are required for final grade.

Course Requirements:

Attendance requirements will be in accordance with current published University policies by class for seniors. Lateness to class and unexcused absences would not be tolerated. Every student must satisfy all course requirements for credit. Students with excused absences should visit with the course professor before or after the next class session in order to have the excuse properly recorded.

Each student that misses a class will submit a three-page paper on the topic missed. The paper must be submitted within one week

The use of tobacco (or any substance) in any form, food substances, (or any substance) in any form is not allowed in the classroom.

Course Objectives:

1. To develop teaching lesson plans, teach and evaluate aviation student learners by developing an understanding of the theories and practices of learning and teaching as well as general aviation knowledge.
2. To prepare for and pass the FAA Fundamentals of Instruction knowledge test with a score of 70% or better
3. To prepare for and pass the FAA Flight Instructor knowledge test with a score of 70% or better
4. To prepare for and pass the KSU CFI Review Boards
5. To prepare for and pass the FAA CFI Flight Instructor Practical Test

Course Learning Objectives:

1. Students will obtain an understanding of the professional and ethical responsibilities of becoming a certified flight instructor through material taught out of the Aviation Instructors Handbook (FAA-H-8083-9A)

2. Students will demonstrate their writing skills by analyzing the book “The Fred Factor”, explaining in a three page paper the following questions. Why do you think this book was assigned? In what way will this assignment change your approach to being a professional in the field of aviation? Give an example of a Fred that you know or have met in the past, and explain why. This assignment will assess the student’s writing communication skills.

3. At the conclusion of this course the student will have to demonstrate their knowledge needed to become a professional flight instructor through a series of review board quizzes. These nine quizzes will evaluate the student’s knowledge finding weak areas that will need to be addressed before the student graduates from the course.

4. A review board consisting of three individuals (two flight instructors and a chief instructor) will be the oral portion of the student’s final check ride. This two and a half hour process will require the student to teach a prepared topic assigned from a weak area found from the review board quiz results, and an unprepared topic covering a maneuver similar to the required teaching from the practical test standards. The remaining time will be set aside for general questioning on a wide range of topics including any weak areas found on the review board quizzes. The review board assesses the student’s skills to communicate as a flight instructor.

5. The student will learn certified flight instructors never stops learning, continually updating their knowledge base as information changes. These habits need to be carried onward from this point forward in any future endeavor regardless of the aviation related field they might end up.

6. The student will explore different teaching techniques necessary for becoming a professional flight instructor by developing skills through repeated presentations in class and in front of students. This is accomplished by creating lesson plans for the power curve and complex gear and prop systems ground schools that are taught to current students in the flight program. The flight instructor candidates will be critiqued on a number of areas further developing their teaching skills, improving their technique.

7. Flight instructor candidates will participate in classroom discussion on best practices for explaining aerodynamics in flight that will aid students mastering techniques of handling an aircraft. Additionally classroom discussion will evaluate candidate’s knowledge of weather theory and their ability to apply this theory to the feasibility of a flight through weather decision making using weather services.

Course Content Outline:

TCO LESSONS AND DATES		READING ASSIGNMENT
CFI #1	Monday 8/25	Course Introduction
CFI #7	Wednesday 8/27	FOI Chapter 6
	Friday 8/29	CFI Ethics
CFI #2	Monday 9/1	No Class
CFI #3	Wednesday 9/3	CFI Ethics <i>Private Teaching Due 09-5-2014</i>
CFI #3	Friday 9/5	FOI Chapter 2
CFI #3	Monday 9/8	FOI Chapter 2
CFI #12	Wednesday 9/10	Maintenance **
CFI #12	Friday 9/12	Maintenance **
CFI #2	Monday 9/15	FOI Chapter 1
CFI #6	Wednesday 9/17	Aeronautical Decision Making (Read Handout)
CFI #8	Friday 9/19	ADM <i>Commercial Teaching Due 09-19-2014</i>
CFI #4	Monday 9/22	FOI Chapter 3
CFI #4	Wednesday 9/24	FOI Chapter 3
CFI #13	Friday 9/26	Regulations (Introduction) ** (Bring FAR/AIM)
CFI #5	Monday 9/29	FOI Chapter 4
CFI #5	Wednesday 10/1	FOI Chapter 4
CFI #13	Friday 10/3	Regulations ** <i>(FAR Part 61)</i>
CFI #5	Monday 10/6	FOI Chapter 5

CFI #14	Wednesday 10/8	Regulations (FAR Part 61 & 141)
CFI# 14	Friday 10/10	Regulations (FAR Part 1552)
CFI#7	Monday 10/13	FOI Chapter 7
CFI#7	Wednesday 10/15	FOI Chapter 7
CFI#16	Friday 10/17	Airspace ** <i>Cross-Country Quiz due 10-17-2014</i>
CFI#16	Monday 10/20	Airspace **
CFI#27	Wednesday 10/22	FOI Chapter 8
CFI#15	Friday 10/24	QUIZ (Mx, Regulations & Airspace **)
CFI#6	Monday 10/27	FOI Chapter 8
CFI#18	Wednesday 10/29	Endorsements
CFI#18	Friday 10/31	Endorsements
CFI # 10	Monday 11/3	FOI Class final
CFI # 19	Wednesday 11/5	Endorsements
CFI #	Friday 11/7	Practical Test Standards <i>FAA FOI results due 11-7-2014</i>
	Monday 11/10	Veteran's Day (No Class)
CFI #20	Wednesday 11/12	Practical Test Standards
CFI # 21	Friday 11/14	8710/IACRA
CFI # 21	Monday 11/17	8710/IACRA
	Wednesday 11/19	Aerodynamics
	Friday 11/21	Weather Theory <i>Fred Factor Paper Due 11-21-2014</i>
	Monday 11/24	Weather Theory
	Thanksgiving Break No Class 11/26 & 11/28	
	Monday 12/1	TBA

Wednesday 12/3	TBA
Friday 12/5	TBA
Wednesday 12/10	FAA FIA Due 12-5-2014 10:15- 12:30 Class Final

Note: All dates on this syllabus are nearer than they appear.

Evaluation Criteria:

There will be a final examination. Impromptu quizzes and/or exercises will be given at least once a week. Each quiz or exercise may cover material previously assigned, current instruction or a combination thereof. These quizzes or exercises will contribute towards each student's final grade for the semester.

Grading System:

FOI FAA test	100 points
FIA FAA test	100 points
FOI Quizzes & XC quiz,	100 points
FOI final	100 points
<i>The Fred Factor</i> paper	100 points
Final Comprehensive Exam	100 points
Chapters 12,13,14,15 Quiz	100 points
Private & Commercial Teaching	100 points

Grading Scale:

A	800-760	B	687-664	C	623-608	D	583-560
A-	759-720	B-	663-640	C-	607-600	F	559<
B+	719-688	C+	639-624	D+	599-584		

Student Activities/Projects:

1. Each student will develop and present two lessons (FAA format): one for a private and one for a commercial student are to be taught at the airport with your flight instructor supervising. Topics and completion dates in the syllabus. Resources are your flight instructor and several texts, which, must be listed in your lesson plan. Formal lesson plans, self-evaluation will be required in for all lessons taught.
2. Compose a twenty question multiple-choice quiz that should be capable of assessing student's knowledge prior to their first solo cross-country flight. This test should be

comprehensive to include all topics required for solo cross-country. Do not include knowledge that should be in the first solo quiz. Correct answers and your references shall be included with the paper.

3. A quiz covering each topic will be completed at the beginning of each class meeting. Quizzes will begin exactly at the beginning of class and one minute per question. No make up quizzes.

4. The students will read the book *The Fred Factor* thru out the semester. A three page paper will be written answering the following question: Why do you think this book was assigned? In what way will this assignment change your approach to being a professional in the field of aviation? Give an example of a Fred that you know or have met in the past, and explain why. This paper should be double spaced and written in APA format.

Review Board and Review Board Quizzes are not used for the determining the grade for this class or the Flight Instructor flight course. These are used to qualify for the recommendation for the flight check and for the intern employment considerations. The review boards will be scheduled near the end of this class.

Students with Disabilities:

University policy 3342-3-01.3 requires that students with disabilities be provided reasonable accommodations to ensure their equal access to course content. If you have a documented disability and require accommodations, please contact the instructor at the beginning of the semester to make arrangements for necessary classroom adjustments. Please note, you must first verify your eligibility for these through Student Accessibility Services (contact 330-672-3391 or visit www.kent.edu/sas <<http://www.registrars.kent.edu/disability/>> for more information on registration procedures).

Course Registration/Proper Enrollment:

Students have responsibility to ensure they are properly enrolled in classes. You are advised to review your official class schedule (using Student Tools in FlashLine) during the first two weeks of the semester to ensure you are properly enrolled in this class and section. Should you find an error in your class schedule, you have until (date will be provided by the Undergraduate Office in advance) to correct the error with the advising office. If registration errors are not corrected by this date and you continue to attend and participate in classes for which you are not officially enrolled, you are advised now that

your will not receive assignment grades or a course grade at the conclusion of the semester for any class in which you are not properly registered.

Withdrawal Deadline:

For Fall and Spring semesters, the course withdrawal deadline is always the Sunday following the 10th week of the semester. For Intersession, the course withdrawal deadline is always the Sunday following the second week (of three total). For Summer I and III, the course withdrawal deadline is usually the Sunday following the second week (of five total). For Summer II, the course withdrawal deadline is usually the Sunday following the fourth week (of eight total). Failure to properly withdraw from a class may result in forfeiture of all course fees.

Academic Honesty:

It is expected that the student complete all of the assigned work alone except when otherwise assigned. If the submitted work is the result of a collaborative effort, names of all members and contributors must be included. If references are used, proper notation is expected (I prefer a paper full of notated references than one with plagiarized material).

Cheating means to misrepresent the source, nature, or other conditions of your academic work (e.g., tests, papers, projects, assignments) so as to get underserved credit. The use of the intellectual property of others without giving them appropriate credit is a serious academic offense. It is the University's policy that cheating or plagiarism result in receiving a failing grade (0 points) for the work or the course. Repeat offenses may result in dismissal from the University. The University's administrative policy and procedures regarding student cheating and plagiarism can be found in the University Policy Register, Chapter 3, Topic 7.

By submitting any material in this course (or any other) you are certifying that it is free of plagiarism. If you would like more information on plagiarism, what it is, and how to avoid it, please visit the following sites:

<http://www.indiana.edu/~wts/pamphlets/plagiarism.shtml>,

<http://sja.ucdavis.edu/avoid.htm>.

• NOTICE OF MY COPYRIGHT AND INTELLECTUAL

PROPERTY RIGHTS. Any intellectual property displayed or distributed to students during this course (including but not limited to powerpoints, notes, quizzes, examinations) by the professor / lecturer / instructor remains the intellectual property of the professor / lecturer / instructor. This means that the student may not distribute, publish or provide such intellectual property to any other person or entity for any reason, commercial or otherwise, without the express written permission of the professor / lecturer / instructor.