



**KLAMATH**  
Community College

2021-22

## Instructional Program Review

### Aviation

JR Scott

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## 1. PROGRAM/DISCIPLINE MISSION/GOALS AND LINK TO STRATEGIC PLAN

### 1A. DESCRIBE PROGRESS TOWARD GOALS SET IN PREVIOUS REVIEW, ANNUAL BUDGET PRESENTATIONS, AND/OR STRATEGIC BUDGET PLANNING.

This is the first review of the Aviation Program.

Summary of significant highlights in the Aviation Program:

The Aviation Program began in Fall Term 2014 with a joint participation agreement with Precision Aviation Training, LLC (PAT). PAT was certified as a flight training school under Federal Aviation Regulation Part 141. PAT worked closely with Klamath Community College's (KCC's) Dean of Career Technical Education (CTE) to develop the framework for the catalog descriptions, aviation course outcome guides, syllabi, and course cost fees. There originally were no KCC personnel assigned to the aviation program and in January 2016, an Aviation Program Lead position was established. The Aviation Program Lead worked directly for the CTE Dean.

On July 17, 2017, the United States Department of Veterans Affairs (VA) conducted a compliance survey on the Aviation Program. On July 31, 2017, the VA suspended approval for the use of GI Bill® benefits for the aviation program due to alleged survey discrepancies. KCC completed all of the required corrections and, on March 13, 2018, the VA reinstated approval of the KCC Aviation Program. Flight courses resumed in Summer Term 2018.

It is important to note that during the 2017 timeframe, the VA also conducted compliance surveys on the aviation programs at Central Oregon Community College, Lane Community College, and Portland Community College and suspended all of them for alleged survey discrepancies.

On July 1, 2020, the Aviation Program Lead position changed from a faculty position to the Aviation Program Director, which is a staff position. The change was due to the extensive student advising requirements that occur between the term periods.

The current Aviation Program Director will be retiring on June 30, 2022. The current Director will remain as an Adjunct Instructor and possible consultant for the new Program Director.

### Strategic Plan 2.0: 2018-2021 Goals

Goal 1 (Prosperity): Pursue full transfer access of our associate degree to four year degree programs
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Measurable Target: 1-3 agreements inked
---

- |   |
|---|
| <ul style="list-style-type: none"><li>Many aviation companies require a bachelor's degree as an entry-level requirement for employment. KCC aviation program should establish advance degree options so students may smoothly transfer into colleges or universities.</li></ul> |
|---|

Goal 2 (Access): Pursue innovative ways to increase student access to funding for the aviation program
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Measurable Target: 1 catalog with 5-7 scholarship, loan or other funding sources in first year
<ul style="list-style-type: none"> <li>In order to comply with VA requirements of civilian to military student ratio, KCC needs to find funding resources to attract civilian students.</li> </ul>
Goal 3 (Access): Pursue FAA testing availability in KCC Testing Center
Measurable Target: Yes/no package approved
<ul style="list-style-type: none"> <li>Need to finalize agreements with FAA approved vendor for testing to be located at KCC so students can take tests here instead of Bend.</li> </ul>
Goal 4 (Planning): Improve faculty pool of certified flight instructors
Measurable Target: Pool of instructors identified for fixed wing - 4 Pool of instructors identified for rotor - 4 paperwork processed successfully for all 8
<ul style="list-style-type: none"> <li>In the process of VA difficulties, some instructors have departed. We need to rebuild the available pool of certified flight instructors</li> </ul>
Goal A (Prosperity): Completion - get students to Licensure
Measurable Target: 10 per year achieve licensure
<ul style="list-style-type: none"> <li>Getting non-military students funding remains the biggest challenge; getting civilian students funding can leverage a large number of military students who are waiting to enter. To increase completion rests almost entirely on financing for civilian students.</li> </ul>

The status on the attainment of the Strategic Plan 2.0 goals is provided in Section 1B below.

### Strategic Plan 3.0

The Strategic Plan 3.0 has five umbrella goals that were briefed at the 22-23 Aviation Budget Proposal Presentation on February 24, 2022. The goals, potential actions, and metrics are detailed below:

#### Descriptive Mission Statement of the Aviation Department

The Aviation Department trains students to work as professional pilots in the air transportation industry. Career paths with this degree include the following: commercial pilot, pilot for a private corporation, charter pilot, and flight instructor to new student pilots.

#### Umbrella Goal 1

Increase enrollment in Non-VA students.

Which new Strategic Initiative does it best match?

#### **Prosperity**

What SMART goals and potential actions will you do towards this umbrella goal?

- Marketing
- Scholarships
- Funding sources
- High school outreach

How will you know you have made progress (measurable metrics)?

1. Demonstrate term to term consistency in VA/civilian ratios with civilians over 15%
2. Ensure scholarship information is advertised to all aviation students
3. Quantify the number of dual credit enrollments

### **Umbrella Goal 2**

Attain an FAA letter of authorization (LOA) to certify KCC graduates for an airline transport certificate under 14 CFR § 61.160 - Aeronautical experience - airplane category restricted privileges

Which new Strategic Initiative does it best match?

#### ***Prosperity***

What SMART goals and potential actions will you do towards this umbrella goal?

1. Research FAA requirements necessary for the application process
2. Validate at least 30 semester credit hours of aviation and aviation-related coursework will be recognized by the FAA
3. Apply for a letter of authorization

How will you know you have made progress (measurable metrics)?

1. Receive signed letter of authorized LOA issued by the FAA General Aviation and Commercial Division (AFS-800)

### **Umbrella Goal 3**

Seek industry partnership for airline industry scholarships and internships.

Which new Strategic Initiative does it best match?

#### ***Access***

What SMART goals and potential actions will you do towards this umbrella goal?

1. Research potential airline partnerships
2. Determine best airline partnership
3. Develop partnership agreement
4. Market the KCC/airline partnership

How will you know you have made progress (measurable metrics)?

1. Provide best airline partnership selection option to KCC leadership
2. A signed airline partnership agreement
3. Ensure airline partnership advertising is in place

### **Umbrella Goal 4**

Develop and deploy non-credit training with the Redbird MCX simulator

Which new Strategic Initiative does it best match?

### ***Community***

What SMART goals and potential actions will you do towards this umbrella goal?

1. Develop standard operating procedure (SOP) for the use of the simulator
2. Develop curriculum for training syllabus, forms, etc.
3. Identify marketing strategy to attract student

How will you know you have made progress (measurable metrics)?

1. Have a completed SOP guideline for simulator use
2. Have training syllabus in place
3. Have Adjunct Certified Flight Instructor(s) authorized for Instrument proficiency checks
4. Ensure that Instrument proficiency check and simulator use is advertised to local pilots
5. Quantify the number of non-credit training enrollments

### **Umbrella Goal 5**

Better serve remote students

Which new Strategic Initiative does it best match?

### ***Access***

What SMART goals and potential actions will you do towards this umbrella goal?

1. Satellite sites
2. Dual credit partnerships/online high school
3. Increase online options

How will you know you have made progress (measurable metrics)?

1. Attain 1-3 high school agreements per year
2. Quantify the number of dual credit enrollments
3. Quantify the number of dual credit students who then enroll in the KCC aviation program

1B. HAVE YOU MET YOUR PREVIOUSLY SET GOALS? IF NOT, HOW DO YOU PLAN TO MEET THEM?

☐ Yes

☒ No

**Status on the attainment of the Strategic Plan 2.0 goals:**

**Goal 1 (Prosperity): Pursue full transfer access of our associate degree to four-year degree programs - Partially successful.**

One approved articulation and one in draft:

- OIT Bachelor of Applied Science in Technology and Management (BTM) articulation agreement was approved on 9/4/2020

- University of Wisconsin Oshkosh (UWO) Bachelor of Applied Studies in Aviation Management emphasis of Leadership & Organizational Studies major. Draft articulation agreement at UWO's Advising and Recruiting Office for finalization

**Goal 2 (Access): Pursue innovative ways to increase student access to funding for the aviation program - Partially successful.**

Funding options: Free Application for Federal Student Aid (FAFSA) and Sallie Mae access are available through KCC. Various bank options are available.

While KCC does not endorse any particular lender, Precision Aviation Training is now an approved school for Meritize, a merit-based financing option, that can potentially improve students' loan options.

Providing students with a free AOPA 6-month subscription so they can consider using the finance options provided by AOPA.

Developed a list of aviation scholarships for students to review:

1. AOPA Flight Training Scholarships
2. Experimental Aircraft Association (EAA) Scholarships
3. National Air Transportation Association (NATA) Scholarships
4. National Business Aviation Association (NBAA) Scholarships
5. National Gay Pilots Association Scholarships
6. University Aviation Association (UAA) Scholarship Listing
7. LeRoy W. Homer Jr. Scholarships
8. General Aviation Manufacturers Association (GAMA) Scholarships
9. Scholarships.com
10. FAA Scholarship Links
11. KCC Foundation Scholarships

**Goal 3 (Access): Pursue FAA testing availability in KCC Testing Center – Successful.**

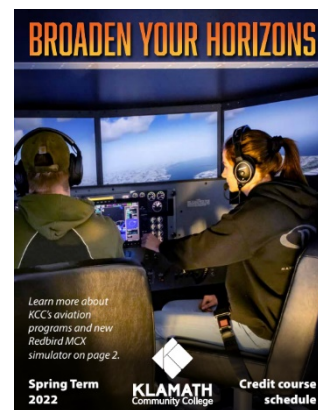
KCC Testing Center was approved to administer the Federal Aviation Administration's Airman Knowledge Testing (AKT) exams. Testing became available to students on March 11, 2022.

**Goal 4 (Planning): Improve faculty pool of certified flight instructors – Successful.**

The number of flight instructors has been sufficient since the restart of the program after VA flight training was authorized in Summer Term 2018. The number of instructors fluctuates as new instructors start and seasoned instructors move on to more lucrative jobs.

Case in point, Cassidy Giesch (seen on the front page of the Spring Term 2022 Credit Course Schedule) has taken a new job at North American Helicopter, which is home-based in St Louis, MO. She will be working on utility inspections and flying Bell 206 turbine helicopters.

KCC currently has 5 flight instructors who have graduated from our program and are starting their flight career as KCC adjunct flight instructors.





### **Goal A (Prosperity): Completion - Get students to Licensure – Partial successful**

The original concept of licensure was not a useful metric, since the student will get a minimum of five licenses (FAA certificates) as they complete their degree. As an example, from catalog year (CY) 20-21 (Summer Term 2020 to Spring Term 2021), 24 FAA licenses were attained. The better metric should have been the number of graduates per year which equated to 5 student graduation during CY 20-21.

## **2. PROGRAM/DISCIPLINE DESCRIPTION AND OVERVIEW**

### **2A. PROVIDE THE CATALOG DESCRIPTION OF THE PROGRAM.**

#### **AVIATION AIRPLANE AAS**

#### **TWO-YEAR ASSOCIATE OF APPLIED SCIENCE DEGREE**

The AAS Aviation Airplane program trains students to work as professional pilots in the air transportation industry. Career paths with this degree include the following: commercial pilot, pilot for a private corporation, charter pilot, and flight instructor to new student pilots.

The AAS Aviation Airplane program is designed to produce high-quality graduates who are prepared to enter the field as aviation pilots. This field offers high-wage careers that are global in scope. The AAS Aviation Airplane degree provides students with the mandatory flight hours along with industry-specified instruction.

Instruction takes place primarily in a one-to-one student-to-instructor learning environment to ensure that students acquire the academic knowledge necessary to be a safe pilot and to pass the FAA knowledge exams. Federal Aviation Regulations 14 CFR parts 61 and 141 set forth the qualifications, testing, and certification requirements for pilots, flight instructors, and ground instructors.

#### **Program Learning Outcomes**

Upon successful completion of the program, students will be able to:

- Perform calculations required for flight operations.
- Identify principles of flight pertaining to single-engine and multiengine fixed-wing aircraft.
- Use communication skills effectively face-to-face and over the radio.
- Evaluate pilot fitness and proficiency, aircraft airworthiness and capabilities, and environmental conditions prior to each flight.
- Summarize the test standards and information in order to pass the FAA checkride and obtain: private pilot cert, instrument rating, commercial pilot cert, multiengine rating, certified flight instructor cert, certified flight instructor instrument rating, and multiengine instructor rating.
- Explain aviation regulations and how they pertain to airport operating procedures, crew rest requirements, general operating flight rules, and flight operations.

#### **Admission Requirements**

Candidates considering the Aviation Airplane AAS should contact the Aviation Program Director at 541-880-2263. The program has special admission requirements, and the Aviation Program Director will

forward the application to interested candidates. The application has a number of requirements that must be satisfied before the candidate will be admitted into the program. If some of the requirements are not completed, a prospective aviation student may start introductory aviation classes, but a student must be accepted into the aviation program before they can begin ground and flight courses. All applicants who are accepted into the program will receive an orientation.

#### Program Requirements

The Aviation Program Director will review candidates' academic history, transcripts from high school and/or college, math and writing competency. Candidates will be advised of their next steps regarding their math and writing placement. Next steps may include taking a placement test or immediately enrolling in appropriate courses.

Candidates for the program must satisfactorily complete all requirements, including a minimum of 92 credits, with 21 credits of general education, 56 credits of technical core subjects, and 15 credits of aviation electives. Successful pursuit of this program requires students to possess collegiate skills in reading, communication, computation, and critical thinking. All courses, with the exception of flight and ground courses, are available online. Students must complete all technical core subject courses (including all flight/ground courses) with a grade of "C" or higher in order to move on to the next flight phase.

Number of credit hours necessary for completion: 92

#### AVIATION HELICOPTER AAS

##### TWO-YEAR ASSOCIATE OF APPLIED SCIENCE DEGREE

AAS Aviation Helicopter program trains students to work as professional pilots in either the air transportation industry or commercial helicopter industry. Career paths with this degree include the following: commercial pilot, pilot for a private corporation, charter pilot, and flight instructor to new student pilots.

The AAS Aviation Helicopter degree program is designed to produce high-quality graduates who are prepared to enter the field as aviation pilots. This field offers high-wage careers that are global in scope. The degree provides students with the mandatory flight hours along with industry-specified instruction.

Instruction takes place in a one-to-one student-to-instructor learning environment to ensure that students acquire the academic knowledge necessary to be a safe pilot and to pass the FAA knowledge exams. Federal Aviation Regulations 14 CFR parts 61 and 141 set forth the qualifications, testing, and certification requirements for pilots, flight instructors, and ground instructors.

#### Program Learning Outcomes

Upon successful completion of the program, students will be able to:

- Perform calculations required for flight operations.
- Identify principles of flight pertaining to helicopters.
- Use communication skills effectively face-to-face and over the radio.

- Evaluate pilot fitness and proficiency, aircraft airworthiness and capabilities, and environmental conditions prior to each flight.
- Summarize the test standards and information in order to pass the FAA checkride and obtain: private pilot cert, instrument rating, commercial pilot cert, certified flight instructor cert, and certified flight instructor instrument rating.
- Explain aviation regulations and how they pertain to airport operating procedures, crew rest requirements, general operating flight rules, and flight operations.

#### Admission Requirements

Candidates considering the Aviation Helicopter AAS degree should contact the Aviation Program Director at 541-880-2263. The program has special admission requirements, and the Aviation Program Director will forward the application to interested candidates. The application has a number of requirements that must be satisfied before the candidate will be admitted into the program. If some of the requirements are not completed, a prospective aviation student may start introductory aviation classes, but a student must be accepted into the program before they can begin ground and flight courses. All applicants who are accepted into the program will receive an orientation.

#### Program Requirements

The Aviation Program Director will review candidates' academic history, transcripts from high school and/or college, and math and writing competency. Candidates will be advised of their next steps regarding their math and writing placement. Next steps may include taking a placement test or immediately enrolling in appropriate courses.

Candidates for the program must satisfactorily complete all requirements, including a minimum of 90 credits, with 21 credits of general education, 54 credits of technical core subjects, and 15 credits of aviation electives. Successful pursuit of this program requires students to possess collegiate skills in reading, communication, computation, and critical thinking. All courses, with the exception of flight and ground courses, are available online. Students must complete all technical core subject courses (including all flight/ground courses) with a grade of "C" or higher in order to move on to the next flight phase.

Number of credit hours necessary for completion: 90

2B. DESCRIBE HOW AND TO WHAT DEGREE THE PROGRAM DESCRIPTION REFLECTS THE PROGRAM'S OVERALL GOALS. IF IT DOES NOT, REVISE PROGRAM DESCRIPTION.

Both Airplane and Helicopter programs' descriptions fully align with the overall descriptive mission statement and goals of both programs and match with the program learning outcomes.

## 2C. COMMUNITY LABOR MARKET NEED ANALYSIS AND PROJECTION

**Commercial Pilots (532012)**

**East Cascades (Crook, Deschutes, Gilliam, Hood River, Jefferson, Klamath, Lake, Sherman, Wasco, Wheeler)**

**Description**

Pilot and navigate the flight of fixed-wing aircraft on nonscheduled air carrier routes, or helicopters. Requires Commercial Pilot certificate. Includes charter pilots with similar certification, and air ambulance and air tour pilots. Excludes regional, national, and international airline pilots.

Projections					
Area	2020 Employment	2030 Employment	Annual Change Openings	Annual Replacement Openings	Total Annual Openings
Oregon	853	1,004	15	86	101
East Cascades	151	183	3	14	17

Wage Range 2021			
Area	Median Hourly	Avg Annual	Middle Range
Oregon	---	\$93,725	--- - ---
East Cascades	---	\$97,275	--- - ---

**Statewide Employment Analysis**

Employment in this occupation in 2020 was similar to most occupations across the state. The total number of job openings is projected to be similar to job openings for most occupations in Oregon through 2030. This occupation is expected to grow at a somewhat faster rate than the statewide average growth rate for all occupations through 2030.

Reasonable employment opportunities exist.

**Area Employment Analysis**

Area employment analysis currently not available.

**Educational Requirements**

The typical entry level education for this occupation is a Associate's degree. Those with a Bachelor's degree have a competitive advantage in the labor market.

**Airline Pilots, Copilots, and Flight Engineers (532011)**

**East Cascades (Crook, Deschutes, Gilliam, Hood River, Jefferson, Klamath, Lake, Sherman, Wasco, Wheeler)**

**Description**

Pilot and navigate the flight of fixed-wing, multi-engine aircraft, usually on scheduled air carrier routes, for the transport of passengers and cargo. Requires Federal Air Transport certificate and rating for specific aircraft type used. Includes regional, National, and international airline pilots and flight instructors of airline pilots.

Projections					
Area	2020 Employment	2030 Employment	Annual Change Openings	Annual Replacement Openings	Total Annual Openings
Oregon	679	848	17	71	88
East Cascades	54	62	1	5	6

Wage Range 2021			
Area	Median Hourly	Avg Annual	Middle Range
Oregon	---	\$159,371	--- - ---
East Cascades	---	\$85,228	--- - -

### Statewide Employment Analysis

Employment in this occupation in 2020 was similar to most occupations across the state. The total number of job openings is projected to be similar to job openings for most occupations in Oregon through 2030. This occupation is expected to grow at a somewhat faster rate than the statewide average growth rate for all occupations through 2030.

Reasonable employment opportunities exist.

### Area Employment Analysis

Area employment analysis currently not available.

### Educational Requirements

The typical entry level education for this occupation is a Associate's degree. Those with a Bachelor's degree have a competitive advantage in the labor market.

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2C.I. HAS THE DEMAND FOR GRADUATES CHANGED IN THE PAST FIVE YEARS? IF SO HOW AND TO WHAT DEGREE?

☒ Yes

☐ No

For airplane program students: COVID-19 has had a devastating effect on flight crew, with tens of thousands around the world laid off or furloughed. After being thrust into crisis by the coronavirus, the aviation industry faces yet more trouble as the world emerges from the worst of the pandemic to find there's now likely to be a shortage of pilots after thousands were laid off or decided to retire.

*"Airlines are poised for their busiest year of pilot hiring in more than three decades as the industry tries to restock a workforce reduced during the pandemic and strained by a quick rebound in travel."*

*"Major U.S. carriers are on track to hire... more than 9,000" in 2022.<sup>1</sup>*

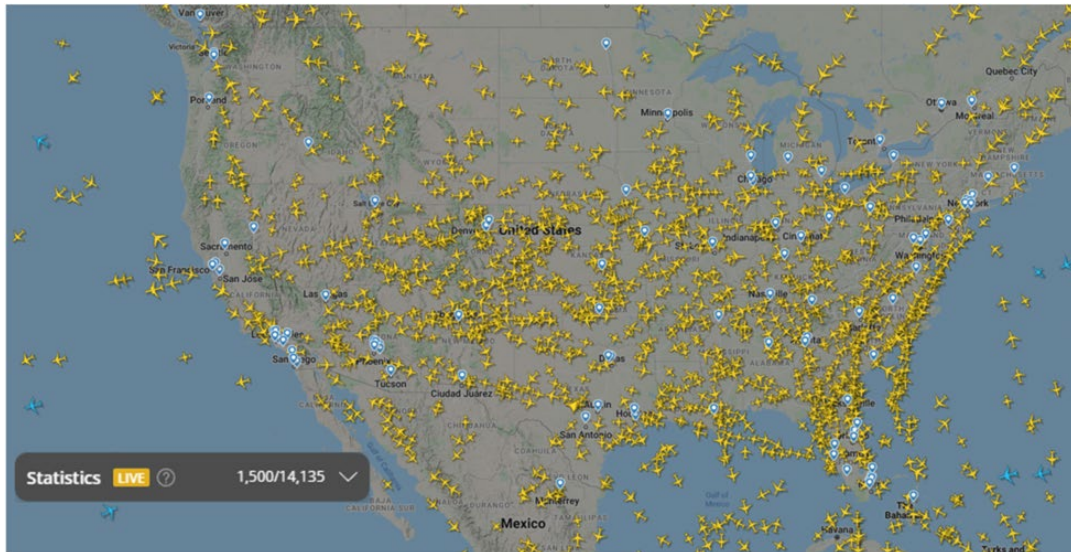
<sup>1</sup> Appeared on November 9, 2021, *THE WALL STREET JOURNAL* print edition as "Airlines Go on Pilot Hiring Spree."

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2C.II. WHAT IS THE EXPECTED MARKET DEMAND FOR THE FUTURE? HOW MIGHT THE LABOR MARKET NEED PROJECTION AFFECT THE PROGRAM? HOW MIGHT THE PROGRAM ADJUST TO THESE PROJECTIONS?

### Airplane Program

The following figure graphically demonstrates the number of aircraft that were shown flying over the United States at 10 am on Wednesday, March 9<sup>th</sup>. From this picture, you can see that 1,500 aircraft are in flight over the US, and 14,135 are in flight over the entire globe. With two pilots per aircraft, there were over 28,000 pilots throughout the world. All of these pilots will, sooner or later, have to retire, so this subjective view shows that the expected labor market demands for airline pilots will be high.



**Live Flight Tracking on March 9, 2022, at 10:00 AM PST**

<https://www.flightradar24.com/>

Boeing, the world's largest aerospace company and leading manufacturer of commercial jetliners, also agreed with this assessment. The company published its Boeing's Pilot and Technician Outlook 2021–2040 in Fall 2021:

*Over the next 20 years, 612,000 new pilots are projected to be needed to meet commercial operator demand.<sup>2</sup>*

<sup>2</sup> Appeared in <https://www.boeing.com/commercial/market/pilot-technician-outlook/>

### Helicopter Program

The expected labor market need projection for helicopter pilots is also strong. As portrayed at the Helicopter Association International (HAI) convention news on March 8, 2022, helicopter jobs have rebounded:

## HAI CONVENTION NEWS

### GENERAL AVIATION

## JSFirm: 'Everyone Is Hiring' in Aviation

by Dan Parsons - March 8, 2022, 6:00 AM

*"Aviation industry jobs have not only rebounded from the pandemic slump, but they have also soared 30 percent from pre-Covid levels, according to employment service JSFirm."*

*"Helicopter-related jobs make up 40 percent of JSFirm's postings..."<sup>3</sup>*

<sup>3</sup> Appeared in <https://www.ainonline.com/aviation-news/general-aviation/2022-03-08/jsfirm-everyone-hiring-aviation>

### Median Annual Salary

**United States:**  
**\$121,430**

**Oregon State:**  
**\$77,639**

**Klamath Region:**  
**\$72,160**

### Prospective Jobs

Commercial pilot

Charter pilot

Helicopter pilot

Flight instructor

Pilot for a private corporation

EMS pilot

### 2019-2029 Employment Projection

**23.9% Growth**

### Entry Level Educational Requirements:

**Associate Degree**

All data was gathered from the [State of Oregon Employment Department](#) and [Bureau of Labor Statistics](#)

Data is provided for a [commercial pilot](#) position. For a different employment forecast please visit the [State of Oregon Employment Department](#).

**2D. DESCRIBE THE SPECIFIC CURRICULAR, INSTRUCTIONAL, OR OTHER CHANGES MADE IN THE PREVIOUS FIVE YEARS.**

The Airplane Program started in 2014 with single engine aircraft capabilities. It became evident that a multiengine commercial rating and multiengine instructor rating are desirable commodities for airlines, regionals, and charter companies who are looking to hire airplane pilots. This absence of the industry's demand for these ratings was addressed in CY 2021-2022 catalog with the inclusion of a multiengine commercial rating and a multiengine instructor rating.

**3. RESOURCES**

**3A. DESCRIBE FACULTY COMPOSITION, QUALIFICATIONS, AND PROFESSIONAL DEVELOPMENT.**

**3A.I. WHAT PERCENT OF FACULTY ARE FULL-TIME? PART-TIME?**

There are one full-time position (Aviation Program Director), 3 Distance Ed Adjuncts, and 13 Certified Flight Instructor (CFI) Adjuncts with 6% full-time and 94% part-time.

FIRST NAME	LAST NAME	EMAIL ADDRESS	Comments
Nigel	Cooper	nigel.cooper@faculty.klamathcc.edu	Distance Ed Adjuncts
Stanley	Pence	pences@klamathcc.edu	Full-time Faculty for KCC's Advanced Manufacturing Engineering Technology Program. Considered an Aviation Distance Ed Adjunct
Keyan	Robles	keyan.robles@faculty.klamathcc.edu	Distance Ed Adjunct
James	Scott	scottj@klamathcc.edu	Aviation Program Director
Kevin	Sivertson	kevin.sivertson@faculty.klamathcc.edu	Job change - No longer a KCC Instructor
Matthew	VanPelt	matthew.vanpelt@faculty.klamathcc.edu	Precision's Director of Training

**3A.II. DESCRIBE FACULTY DEGREE ATTAINMENT. WHAT ARE THE MINIMUM DEGREE QUALIFICATIONS? WHAT PERCENT OF FACULTY EXCEED MINIMUM DEGREE QUALIFICATIONS?**

Cooper, Nigel. A.S., Central Institute of Technology (New Zealand): FAA Airline Transport Pilot; Rotorcraft-Helicopter, Commercial Privileges Airplane Single & Multiengine Land, Instrument Airplane, Flight Instructor; Airplane Single Engine, Rotorcraft-Helicopter, Instrument Airplane and Helicopter

Pence, Stanley. B.S., San Jose State University; B.S., Oregon Institute of Technology.

Robles, Keyan. B.S., Embry-Riddle Aeronautical University; FAA Commercial Pilot and Flight Instructor Certificate; Airplane Single Engine Land; Rotorcraft-Helicopter with Instrument Airplane and Helicopter

Scott, James. B.S., Penn State University; M.S., Naval Postgraduate School; FAA Commercial Pilot Certificate; Airplane Single Engine Land; Rotorcraft-Helicopter with Instrument Helicopter.



VanPelt, Matthew. B.S., Embry-Riddle Aeronautical University; FAA Airline Transport Pilot Airplane Multiengine, Rotorcraft-Helicopter, Commercial Privileges Airplane Single Engine Land & Sea, Rotorcraft-Gyroplane

KCC currently has 13 adjunct flight instructors with 9 helicopter CFI's, 5 airplane CFI's, and 2 that are dual-hatted. The number of instructors fluctuates as new instructors start and seasoned instructors moved on to more lucrative jobs. A total of 10 of our 13 graduates has started their flight career as a KCC CFI.

Instructor qualifications of our KCC CFIs are described in Precision Aviation Training's Annex A:

Required Document for  
FAA's Part 141  
Aviation Flight School



TRAINING COURSE OUTLINE

ANNEX A  
PERSONNEL AND EQUIPMENT

**PERSONNEL AND EQUIPMENT**

- 1. Overview:** The purpose of this document is to provide an overview of training personnel and equipment in accordance with FAR §141.55. It details who holds each position, who is qualified to teach which course and in which aircraft, details all equipment, aircraft and simulators used for flight training. It refers to individual Training Course Outlines (TCOs) and should be read in conjunction with those TCOs.

ANNEX A  
PERSONNEL AND EQUIPMENT

AIRPLANE QUALIFICATIONS TABLE					
<b>Relevant Courses/Ratings Airplane – SEL (Includes Additional Ratings)</b> <ol style="list-style-type: none"> <li>1. Private Pilot Course Airplane, Single Engine Land</li> <li>2. Instrument Rating Course Airplane, Single Engine Land</li> <li>3. Commercial Pilot Airplane, Single Engine Land</li> <li>4. Additional Aircraft Rating, Private Pilot Course Airplane, Single Engine Land</li> <li>5. Additional Aircraft Rating, Instrument Rating Course Airplane, Single Engine Land</li> <li>6. Additional Aircraft Rating, Commercial Pilot Airplane, Single Engine Land</li> <li>7. Flight Instructor Airplane, Single Engine Land</li> <li>8. Flight Instructor Instrument, Airplane, Single Engine Land</li> <li>9. Special Curricula Course – Commercial Instrument Airplane, Single Engine Land</li> </ol>					
Chief Instructor: Matthew VanPelt (352) 552-2551			Primary Location: Newberg, OR		
Assistant Chief Instructor: Lindsey Dike (541) 892-1145			Primary Location: Klamath Falls, OR		
Name	Cert. #	Line Instructor	Check Instructor	Assistant Chief Instructor	Chief Instructor
Matthew VanPelt*	3375464	X	X	X	1,2,3,4,5, 6,7,8,9
Lindsey Dike	3350074	X	1,2,3,4,5, 6,7,8,9		
Ty Burlingham	3170566	X	1,2,3,4,5, 6,7,8,9		
Not a KCC Adjunct Flight Instructor					
Michael De Ruijter	3386750	X	1,2,3,4,5, 6,7,8,9		
Tyler Sturdevant	3060998	X	1,2,3,4,5, 6,7,8,9		
Eric Skipper	3776470	1,2,3,4,5,6,8,9			
Lars Mehlum	3778024	X	X	1,2,3,4,5, 6,7,8,9	
Keyan Robles	3771924	X	1,2,3,4,5, 6,7,8,9		
Emily Wiprud	3032824	X	1,2,3,4,5, 6,7,8,9		
Not a KCC Adjunct Flight Instructor					
Elizabeth Drazich	4158266	1,2,3,4,5,6,8,9			
Daniel Buzalsky	4336575	1,3,4,6			
* Denotes Director of Training. X denotes authorization with additional role. # Ground Instructor Only					

ANNEX A  
PERSONNEL AND EQUIPMENT

HELICOPTER QUALIFICATIONS TABLE					
Relevant Courses/Ratings Rotorcraft – Helicopter (Includes Additional Ratings) <ol style="list-style-type: none"> <li>1. Private Pilot Course Rotorcraft, Helicopter</li> <li>2. Instrument Rating Course Rotorcraft, Helicopter</li> <li>3. Commercial Pilot Rotorcraft, Helicopter</li> <li>4. Additional Aircraft Rating, Private Pilot Course Rotorcraft, Helicopter</li> <li>5. Additional Aircraft Rating, Instrument Rating Course Rotorcraft, Helicopter</li> <li>6. Additional Aircraft Rating, Commercial Pilot Rotorcraft, Helicopter</li> <li>7. Flight Instructor Rotorcraft, Helicopter</li> <li>8. Flight Instructor Instrument Rotorcraft, Helicopter</li> <li>9. Additional Flight Instructor Course, Rotorcraft, Helicopter</li> <li>10. Special Curricula Course – Commercial Instrument Rotorcraft, Helicopter</li> <li>11. Special Preparation Course – Turbine Transition Rotorcraft, Helicopter</li> <li>12. Special Preparation Course – Rotorcraft External Load Operations</li> <li>13. Special Preparation Course – VFR Refresher Rotorcraft, Helicopter</li> </ol>					
Chief Instructor: Matthew VanPelt, (352) 552-2551			Primary Location: Newberg, OR		
Assistant Chief Instructor: Keyan Robles (503) 989-0974			Primary Location: Klamath Falls, OR		
Name	Cert. #	Line Instructor	Check Instructor	Assistant Chief Instructor	Chief Instructor
Matthew VanPelt*	3375464	X	X	X	1,2,3,4,5,6,7,8,9,10,11,12,13
Keyan Robles	3771924	X	X	1,2,3,4,5,6,7,8,9,10,13	
Tyler Sturdevant	3060998	X	1,2,3,4,5,6,7,8,9,10,13		
Lars Mehllum	3778024	X	1,2,3,4,5,6,7,8,9,10,13		
Henry Sexsmith	3717366	X	1,2,3,4,5,6,7,8,9,10,13		
Ty Burlingham	3170566	1,2,3,4,5,6,7,8,9,10,11,12,13	1,2,3,4,5,6,7,8,9,10,11,12,13		
Not a KCC Adjunct Flight Instructor					
David Gilliland	4085664	X	1,2,3,4,5,6,7,8,9,10,13		
Cassidy Giesch	4184493	1,2,3,4,5,6,8,10,13			
Chad Sturdevant	3339675	1,2,3,4,5,6,8,10,13			
James Wiganowsky	4318390	1,2,3,4,5,6,8,10,13			
Cody Paggen	4331871	1,2,3,4,5,6,8,10,13			
Taylor Chism	4381070	1,2,3,4,5,6,8,10,13			
* Denotes Director of Training. X denotes authorization with additional role. # Ground Instructor Only					

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3A.III. LIST THE SPECIFIC PROFESSIONAL DEVELOPMENT PROGRAM FACULTY ATTENDED INCLUDING BOTH ON-SITE AND OFF-SITE TRAININGS; HOW DID THE PROFESSIONAL DEVELOPMENT IMPACT INSTRUCTION, DESIGN, AND DELIVERY?

Annually, all CFIs must complete an approved special preparation flight instructor refresher course which includes a combined total of 16 hours of aeronautical knowledge training and flight training.

ANNEX A  
PERSONNEL AND EQUIPMENT

**PERSONNEL AND EQUIPMENT**

- 2. Training Requirements:** All instructors will undergo annual Part 141 refresher training so satisfy the requirements of FAR §141.79. The relevant Chief Flight Instructor is responsible for the conduct and record keeping of such training.

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3A.IV. ARE FACULTY COMPOSITION, QUALIFICATIONS, AND PROFESSIONAL DEVELOPMENT MEETING INSTRUCTIONAL NEEDS? IF NOT, DESCRIBE ANY PLANS THAT WILL ADDRESS THIS.

- ☐ Yes  
☐ No  
☒ Somewhat

As we work to improve access for civilian students (which will increase VA enrollment), begin offering more dual credit online for high school students, and provide CMX simulator non-credit training, we will require more administrative and instructional support to manage the increased training, instruction, and advising needs.

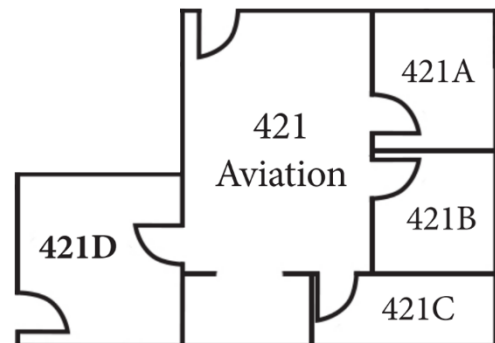
**3B. DESCRIBE THE SPECIFIC FACILITIES, EQUIPMENT, AND MATERIALS USED BY THE PROGRAM.**

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3B.I. ARE FACILITIES MEETING INSTRUCTIONAL NEEDS? IF NOT, DESCRIBE ANY PLANS THAT WILL ADDRESS THIS.

- ☒ Yes  
☐ No  
☐ Somewhat

The Aviation program received permission for a new Aviation Center in Building 4 Room 421. Changes to the original classroom included the construction of three offices, a common area, a student study area (with four computer stations), and a simulator room for a stationary Cabri helicopter simulator in Room 421D.



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3B.II. IS EQUIPMENT MEETING INSTRUCTIONAL NEEDS? IF NOT, DESCRIBE ANY PLANS THAT WILL ADDRESS THIS.

☒ Yes

☐ No

☐ Somewhat

A new Redbird MCX Full-Motion Airplane Simulator was placed in Bldg 6 Rm 138. This simulator is integrated into the airplane program's AVS 202 Instrument course training lessons. The MCX will also be used for non-credit training for local pilots to maintain instrument experience or for those who must reestablish instrument currency by completing an instrument proficiency check by a KCC CFI.



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3B.III. ARE INSTRUCTIONAL MATERIALS MEETING PROGRAM NEEDS? IF NOT, DESCRIBE ANY PLANS THAT WILL ADDRESS THIS.

☒ Yes

☐ No

☐ Somewhat

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3C. DESCRIBE THE INSTRUCTIONAL SUPPORT SERVICES THE PROGRAM USES.

KCC's Center for Teaching and Learning (CTL) has been active with updating aviation distance ed courses. Courses that have been updated have been AVS 100, AVS 105, AVS 140, AVS 150, and the new course: AVS 130.

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3C.I. REVIEW LRC HOLDINGS FOR RELEVANCY AND CURRENCY TO PROGRAM.

None

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3C.II. REVIEW PROGRAM STUDENT USE OF TUTORING AND E-TUTORING.

Starting in Fall 21 term, the Aviation Program began hiring student worker positions for aviation students who will be enrolled in KCC's CFI or Certified Flight Instructor Instrument (CFII) courses. The primary duty of this position will be to act as an Aviation Tutor for other KCC students who need help in the Private, Instrument, and Commercial courses. Two tutors we hired for Fall 21 and one was actively tutoring students. No candidates applied for Winter Term 22.

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3C.IV. REVIEW OTHER INSTRUCTIONAL SUPPORT SERVICES (STUDENT CLUBS, ADVISING, TRIO, VETERANS SERVICES, ETC.) IF APPLICABLE.

Veterans Services has been instrumental in the successful continuation of the aviation program. Around 80-85% of the aviation students are VA students who are using their Post-9/11 GI Bill educational benefits.

**3D. DESCRIBE TO WHAT DEGREE THE PROGRAM USES THE COLLEGE'S LEARNING MANAGEMENT SYSTEM (CANVAS) FOR ALL METHODS OF DELIVERY (FACE-TO-FACE, ONLINE, SYNCHRONOUS, HYBRID).**

The Canvas Learning Management System is used for all AVS courses.

Approximately 60% of our aviation students fly and train at PAT's home airport in Newberg, OR. Therefore, Newberg students must use Canvas-based distance ed (DE) courses. For this reason, all of the AVS core and aviation electives were designed as Canvas DE courses. It is also interesting that over 95% of Klamath-based students use DE Gen Ed courses, vice on campus F2F classes, to preclude any conflicts that could arise with flight lessons.

AVS DE Courses		
Course Number	Distance Education Courses	Type
AVS 100 DE	Intro to Aviation	CORE
AVS 105 DE	Aviation Fundamentals	CORE
AVS 120 DE	Aircraft Systems & Structures I: Airframe	ELECTIVE
AVS 125 DE	Aircraft Systems: Powerplants	ELECTIVE
AVS 140 DE	Intro to Unmanned Aerial Systems	ELECTIVE
AVS 150 DE	Meteorology I	CORE
AVS 155 DE	Applied Aerodynamics	CORE
AVS 251 DE	Aviation Law & Regulations	CORE
AVS 252 DE	Human Factors	CORE
AVS 254 DE	Aviation Safety	ELECTIVE

All AVS flight and ground school courses (e.g., AVS 205F/G) are F2F with their flight instructors, but the course information, including syllabi and training course outline, are available in Canvas.

## 4. EFFECTIVENESS

### 4A. STUDENT LEARNING OUTCOMES ASSESSMENT

Aviation flight courses do not usually qualify for KCC assessment due to the low number of students that take the courses.

ADV_REQ_CDE	Course	Number of assessments
AVS105	Aviation Fundamentals	2
AVS140	Intro to Unmanned Aerial Systems	1
AVS150	Meteorology I	1
AVS202F	Instrument Flight- Airplane	1
AVS251	Aviation Law & Regulations	1

4A.I. COURSE LEARNING OUTCOMES (CLO)

Course Code Key					
	Has Result Submitted		Has Result Submitted		Has Plan And Result Submitted

CLOs		
Course Code	Term Year	Instructor
AVS 140 01 DE	SP2020	Sivertson, Kevin 573246

4A.I.1 DESCRIBE EVIDENCE OF STUDENT PROFICIENCY IN CLOS. IF THERE IS NO EVIDENCE, DESCRIBE PLANS TO ADDRESS THIS.

The assigned CLO, AVS 140 01 DE, demonstrated successful student proficiency as assessed in the instructor's plan and results. The important areas of the assessment are highlighted below:

**Plan:**

**Instructor:** Kevin Sivertson

**Course:** AVS 140 01

**CLO:** "4. Relate the regulations pertaining to UAS operations in the US National Airspace System."

**Have you completed an assessment prior to this term:** No

**If yes, is this a different outcome?:** N/A

**Have you previously formally assessed and reported the results of student proficiency of this course learning outcome?** No

**If yes, why are you choosing to reassess this outcome?** NA

**Method of assessment:** Essay

**Target of Assessment:** If 80% of Students score 80% or better on the rubric for the UAS regulations Assignment, I will be successful in my efforts to teach this outcome

**Results:**

**Instructor:** Kevin Sivertson

**Course:** AVS 140 01

**CLO:** Relate the regulations pertaining to UAS operations in the US National Airspace System.

**Method of assessment:** Student Essays in Assignment

**Enter the percentage of students who demonstrated proficiency of the outcome.** 100%

**Did student achievement meet your expectations for successfully teaching to the outcome?** Yes

**What contributed to student success and/or lack of success?** Student success is contributed to prior knowledge and added knowledge from the required textbook and FAA information.

**Were your assessment methods accurate indicators of student learning? Why or why not?** Students were proficient in following the rubric and outline of the assignment. They demonstrated very good writing abilities and clearly defined objectives. Yes, every student did not have prior knowledge of Unmanned Aviation regulations before coming to class and clearly demonstrated their understanding of the rules and regulations afterwards.

**Compare your students' self-assessment of their outcome proficiency to your direct assessment results.** No students submitted Course evaluations, but I did receive email feedback. The feedback was helpful for my



understanding of student needs and misalignment in quizzes and assignments. Some students were frustrated with online and COVID responsibilities reflected in lower participation and late work.

**Based on your analysis, what course adjustments have you made or will you make?:** I will make a few adjustments to the course in the fall based on feedback from students.

1. engage better with students to create a better sense of community and interaction. (more interactive assignments requiring comments and dialogue.

2. Rework assignments to reflect current and future uses of UAS with less of a focus on Military uses.

**What resources would be required to implement your recommended course adjustments (materials, training, technology, etc.)? What budget implications result?:** A better understanding of Canvas on my part and implementing its full capabilities. There are no budget implications at this time.

**Reflect on any adjustments you made from the last assessment of this course and the effectiveness in student achievement of outcomes, if applicable.** This is my first term teaching this course so it will provide a great baseline for how to improve the course assessments in the future.

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#### 4A.I.2 DESCRIBE THE SPECIFIC PROCESS FOR ADVISORY COMMITTEES FOR REVIEWING COURSE CONTENT AND OUTCOMES GUIDES (CCOGS). IF THERE IS NO PROCESS, DESCRIBE PLANS TO ADDRESS THIS.

The Aviation Advisory Committee meets each term and discusses aviation operations, student completion rates, enrollment rates, VA/Civilian ratios, and other high-priority program issues. For the Winter Term 2022 Advisory Committee meeting, members discussed applying for a Federal Aviation Administration (FAA) letter of authorization (LOA) that would certify KCC graduates to apply for a restricted privileges airline transport pilot (ATP) certificate. An applicant for a restricted privileges ATP certificate must follow the Aviation Coursework Mapping requirements from the FAA's Advisory Circular (AC) 61-139: Institution of Higher Education's Application for Authority to Certify its Graduates for an Airline Transport Pilot Certificate with Reduced Aeronautical Experience. To meet AC 61-139 course mapping required, AVS 100 and AVS 105 required changes in their course learning outcomes.

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#### 4A.I.3 WHICH COURSES HAD LEARNING OUTCOMES REVISED/UPDATED AND WHY?

From Section 4A.I.2 discussion, the AVS 100 CLOs has been changed to conform with AC 61-139 requirements. AVS 105 is in the process of updating the CLOs, but the change also requires a change to the course description, which will require Curriculum Council approval for inclusion in the catalog.

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#### 4A.I.4 IDENTIFY AND GIVE EXAMPLES OF CHANGES MADE IN INSTRUCTION THAT OCCURRED AS THE RESULT OF CLO ASSESSMENT. IF THIS HAS NOT OCCURRED, DESCRIBE PLANS TO ADDRESS THIS.

CTL and the main instructor for AVS 100 have been updating the modules, quizzes, tests, and assignments to address the new CLO. The old and new CLOs are listed below:

##### **Old AVS 100 Course Learning Outcomes**

Upon successful completion of this course, students will be able to:

- 1- Link significant events to changes in the aviation industry.
- 2- Relate the history of aviation including the development of aircraft design.
- 3- Outline the certifications and qualifications of the aviation industry.
- 4- Apply a self-assessment of individual goals and aspirations within the industry.
- 5- Take part in observing professionals in their aviation occupation.
- 6- Examine the status of the modern day aviation industry.



### **New AVS 100 Course Learning Outcomes**

Upon successful completion of this course, students will be able to:

- 1- Describe the Federal Aviation Administration (FAA) structure as it relates to general aviation.
- 2- Cite the FAA certificates and ratings that apply to desired career paths and describe in general terms what training is required to earn them.
- 3- Compare viable aviation-related career paths of interest and describe in general terms the requirements for those careers.
- 4- Summarize a career path based on an interview with an industry professional in that job role.
- 5- Describe procedures and expectations inside and outside the cockpit on an active ramp based on experience gained from the course.

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#### **4A.II PROGRAM LEARNING OUTCOMES (PLO)**

### **Airplane Program Learning Outcomes**

Upon successful completion of the program, students will be able to:

- Perform calculations required for flight operations.
- Identify principles of flight pertaining to single-engine and multiengine fixed-wing aircraft.
- Use communication skills effectively face-to-face and over the radio.
- Evaluate pilot fitness and proficiency, aircraft airworthiness and capabilities, and environmental conditions prior to each flight.
- Summarize the test standards and information in order to pass the FAA check ride and obtain: private pilot cert, instrument rating, commercial pilot cert, multiengine rating, certified flight instructor cert, certified flight instructor instrument rating, and multiengine instructor rating.
- Explain aviation regulations and how they pertain to airport operating procedures, crew rest requirements, general operating flight rules, and flight operations.

### **Helicopter Program Learning Outcomes**

Upon successful completion of the program, students will be able to:

- Perform calculations required for flight operations.
- Identify principles of flight pertaining to helicopters.
- Use communication skills effectively face-to-face and over the radio.
- Evaluate pilot fitness and proficiency, aircraft airworthiness and capabilities, and environmental conditions prior to each flight.
- Summarize the test standards and information in order to pass the FAA check ride and obtain: private pilot cert, instrument rating, commercial pilot cert, certified flight instructor cert, and certified flight instructor instrument rating.
- Explain aviation regulations and how they pertain to airport operating procedures, crew rest requirements, general operating flight rules, and flight operations.

Course Code Key					
	Has Result Submitted		Has Result Submitted		Has Plan And Result Submitted

PLOs		
Course Code	Term Year	Instructor
<a href="#">AVS 105 01 DE</a>	SP2019	Scott, James 531629
<a href="#">AVS 105 01 DE</a>	FA2020	Cooper, Nigel 554975
<a href="#">AVS 150 01 DE</a>	WI2020	Scott, James 531629
<a href="#">AVS 202F 02</a>	WI2021	VanPelt, Matthew 571014
<a href="#">AVS 251 01 DE</a>	WI2019	Scott, James 531629

4A.II.1 DESCRIBE EVIDENCE OF STUDENT PROFICIENCY IN PLOS. IF THERE IS NO EVIDENCE, DESCRIBE PLANS TO ADDRESS THIS.

<a href="#">AVS 202F 02</a>	WI2021	VanPelt, Matthew 571014
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AVS 202F 02: Instrument/Commercial I Flight - Airplane course in Winter 2021

Matt VanPelt is PAT's Director of Training and his name is used as a placeholder for the instructor of record for this course. Other flight instructors have been assigned as primary flight instructors for the enrolled students. The focused areas of the PLO assessment plan and results follow:

#### PLO Assessment Plan

Selected PLO assesses: Identify principles of flight pertaining to single-engine, fixed-wing aircraft.

AVS 202F is a F2F course and the tool to assess the selected PLO was Flight lesson 23 – Stage II Check

Assessment Target: If 70% or better of students successfully pass the Stage II check (through oral examination, written test, and flight test with a Stage Check Pilot), the students' Certified Flight Instructors will have demonstrated the knowledge, understanding, and skill necessary to effectively perform the maneuvers and procedures selected in this lesson to a Private Pilot - Instrument standard.

## **PLO Assessment Results and Analysis**

Three students were enrolled in this course.

The artifact that provided evidence of student proficiency in the outcome: Results of Flight 23 - Stage II Check results were gathered from each student's Flight Training Records.

Percentage of students who demonstrated proficiency of the outcome: 100%

3 of 3 students completed their Stage II Stage Check with a successful oral examination, written test, and flight test ensuring that the students demonstrated the knowledge and skill required to meet the Completion Standards.

Were your assessment methods accurate indicators of student learning?: Yes, the stage checks are completed by experienced Instructors who hold a Check Instructor qualification. Check Instructors undergo training as prescribed by FAR §141.37. They also review the students' primary flight instructors to ensure they are teaching to the training requirement set in the course's Training Course Outline.

Based on my analysis of the course, I feel that the course has been put together appropriately. No major course adjustments are necessary.

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4A.II.2 IDENTIFY AND GIVE EXAMPLES OF CHANGES MADE IN INSTRUCTION THAT OCCURRED AS THE RESULT OF PLO ASSESSMENT. IF THIS HAS NOT OCCURRED, DESCRIBE PLANS TO ADDRESS THIS.

As with the analysis of the AVS 202F assessment results, all the other PLO assessments (AVS 105, 150, and 251) had successful outcome assessment results, so no major course adjustments were required.

## **4B. STUDENT SUCCESS**

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4B.I. DESCRIBE ENROLLMENT TRENDS AND PLANS TO ADDRESS THEM.

The 85/15 rule and its effect on enrollment.

The 85/15 rule prohibits paying VA benefits to students starting in a program when more than 85% of the students enrolled in that program are having any portion of their tuition, fees, or other charges paid for them by the school or VA. If the ratio of Supported Students (i.e., VA students) to Non-Supported Students (i.e., Civilian students) exceeds 85%, only students maintaining continuous enrollment may receive benefits for that program.

The 85/15 rule was exceeded in Fall 21 and Winter 22 in the helicopter program, so no new VA helicopter student could be started. Again, this does not affect the VA students who have maintained continuous enrollment in the helicopter program, but it limits any new VA student enrollments. This problematic issue will be addressed in the Strategic Plan 3.0 Umbrella Goal 1: Increase enrollment in Non-VA students.

### Airplane:



The VA re-authorized the airplane program for Summer 2018. CY 18-19 headcount of 19 has grown to the CY 20-21 headcount of 31. CY 21-22 headcount is estimated to be around 40. With the inclusion of the new multiengine training, the new Redbird CMX full-motion simulator, and an emphasis on Umbrella Goal 1's aviation marketing, the headcount will assuredly increase further.

### Helicopter:

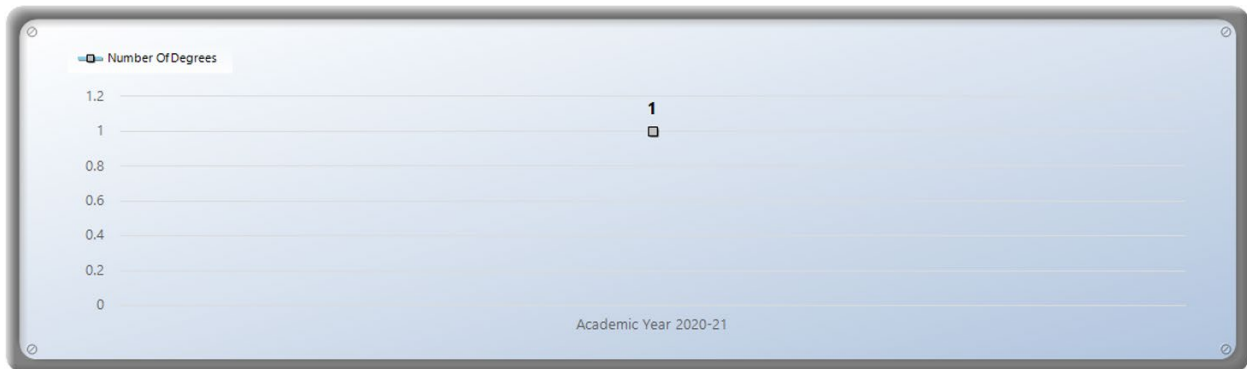


The VA re-authorized the helicopter program for Summer 2018. The headcounts steadily grew from at CY 18-19 headcount of 42 to a CY 20-21 headcount of 61. CY 21-22 headcount is estimated to be around 78. The emphasis on Umbrella Goal 1 aviation marketing will positively affect the headcount.

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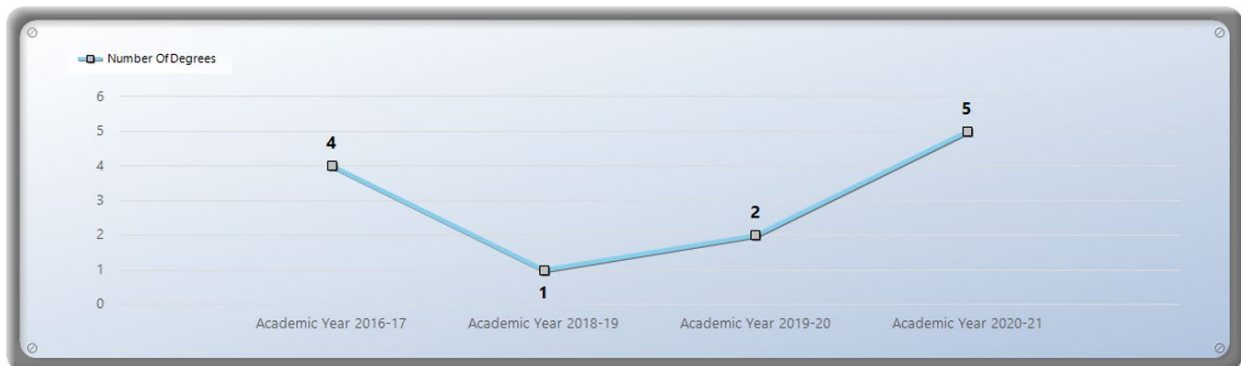
4B.II. DESCRIBE DEGREE AWARDED TRENDS AND PLANS TO ADDRESS THEM.

Airplane:



Anticipate 2 Airplane AAS Degree completions at the end of Spring 2022

Helicopter:



Anticipate 3 Helicopter AAS Degree completions at the end of Spring 2022

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4B.III. REVIEW TRANSFERABILITY OF PROGRAM.

Strategic Plan 3.0 Umbrella Goal 5: Better serve remote students will address the increase in satellite sites, dual credit partnerships, and online high schools.

Also, discussed at the aviation budget presentations was an outlier consideration for the creation of a four year Bachelor of Applied Science (BAS) presence at KCC with:

- Bachelor of Applied Science in Airplane Aeronautics
- Bachelor of Applied Science in Helicopter Aeronautics

The idea of a BAS has negative ramifications for the 85/15 rule. At the end of each term, both AAS programs' 85/15 ratios are checked. If two BAS programs are added, there would be four 85/15 ratios that would have to be checked. This would make it considerably harder to have a positive 85/15 ratio with the current shortage of civilian students.

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#### 4B.III.1 DESCRIBE TRANSFERABILITY FROM HIGH SCHOOL TO KCC TO OUS.

Sisters High School and Henley High School have approved partnerships for aviation dual credit. Crater Lake Academy, in Central Point, OR, is finalizing an online dual credit aviation agreement with KCC. These three schools will continue to be part of Strategic Plan 3.0 Umbrella Goal 5: Better serve remote students.

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#### 4B.III.2 HAS THIS CHANGED OVER THE LAST FIVE YEARS? IF SO, WHY? WHAT ARE THE IMPACTS ON STUDENTS AND THE PROGRAM?

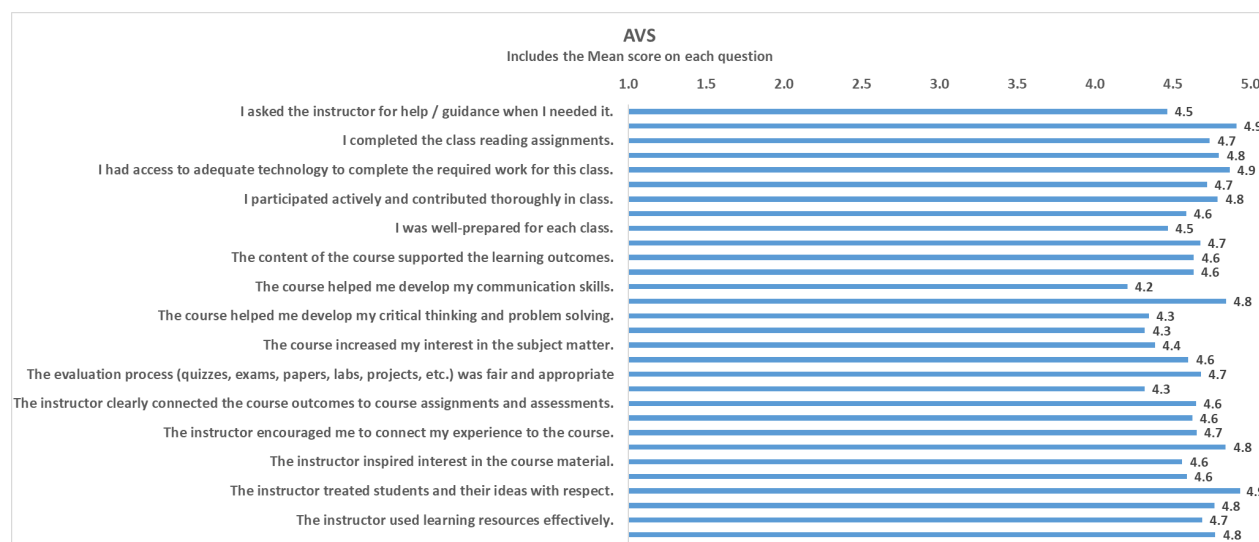
Strategic Plan 2.0 Goal 1: Pursue full transfer access of our associate degree to four-year degree programs reflects the status on two transferability articulations:

- OIT Bachelor of Applied Science in Technology and Management articulation agreement was approved on 9/4/2020
- University of Wisconsin Oshkosh (UWO) Bachelor of Applied Studies in Aviation Management emphasis of Leadership & Organizational Studies major. Draft articulation agreement at UWO's Advising and Recruiting Office for finalization.

### 4C. STUDENT ENGAGEMENT AND SATISFACTION

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#### 4C.I. COURSE EVALUATIONS DATA AND ANALYSIS



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#### 4C.I.1 DESCRIBE CHANGES MADE IN INSTRUCTIONAL METHODS BASED ON STUDENT COURSE EVALUATION DATA. IF THIS HAS NOT OCCURRED, DESCRIBE PLANS TO ADDRESS THIS.

After reviewing the students' advice or comments on 52 different AVS DE course evaluations from Fall 2016 to Spring 21 period, it was determined that 99% of the comments were positive. Two different students provided a negative comment and these comments and their remedies are discussed in 4C.I.2 below. Based on the positive student course evaluation comments and the completed remedies, no changes to the instructional methods were considered necessary.

#### 4C.I.2 DESCRIBE CHANGES MADE TO THE COURSE BASED ON STUDENT COURSE EVALUATION DATA.

Negative Comment from AVS 150 01 DE - Meteorology I - Summer 2017: "The course was terrible, very poorly put together, tons of spelling and grammar errors, ... With that being said, the instructor was great, due to the situation that he was involved in, he handled the situation very professionally, but his hands were tied due to circumstances."

Response to student comments: The student was correct. The course was in the process of a re-designed with the help of a KCC instructional designer. The designer used H5P, a new open-source content collaboration framework based on Javascript. Any issues noted during the module reviews (and there were many) had to be fixed by the instructional designer. The problem was exacerbated when the designer left for a two-week vacation. All the many issues were fixed and the course was taught again in Winter 2017 term with a positive comment for the WI17 evaluation stating "Thanks, good course."

Negative Comment from AVS 140 01 DE - Intro to Unmanned Aerial Systems - Winter 2017: "The text book is hardly worth the paper it is written on. It appears that it was published about 5 years before the applicable FAR's that make it obsolete."

Response to student comments: The student was correct. The first edition of the course textbook, *Introduction to Unmanned Aircraft Systems*, by Douglas M. Marshall, Richard K. Barnhart, et al. was published on Oct 25, 2011. The second edition of the course textbook, published June 8, 2016, required significant revisions to the Canvas modules, quizzes, and final exam to update the course. This was completed and the next course offering was Fall 2019.

#### 4C.II JOB PLACEMENT DATA AND ANALYSIS (IF AVAILABLE)

Klamath Community College - List of Aviation Program Graduates						
Number	KCC ID	Name	Program	Date Conferred:	KCC CFI Adjunct	Employment after Graduation
1	561035	Jones, Robert W.	Helicopter	7/21/2017	No	Helicopter Transport Services
2	555648	Kauffman, Kirby E.	Helicopter	7/21/2017	Yes	Precision CFI followed by US Army (H-60 Blackhawks)
3	561230	Sharp, Will R.	Helicopter	7/24/2017	No	Firehawk Helicopters/Oregon Army National Guard
4	535595	Walker, Justin D.	Helicopter	7/24/2017	Yes	Precision CFI followed by RMC Aviation as Helicopter Pilot; followed by FLT Academy as CFI; followed by SkyWest Airlines as Airline Pilot/First Officer.
5	554016	Willburn, Jordan A.	Helicopter	8/29/2019	Yes	Precision CFI and Precision Maintenance
6	567978	Gilliland, David L.	Helicopter	1/30/2020	Yes	Precision CFI
7	568212	Campbell, Casey R.	Helicopter	7/1/2020	Yes	Precision CFI followed by Western Helicopters
8	567754	Skipper, Eric J.	Airplane	12/14/2020	Yes	Precision CFI followed by Aurora Aviation
9	567590	Giesch, Cassidy R.	Helicopter	12/23/2020	Yes	Precision CFI followed by North American Helicopter
10	568114	Maltbie, Steven T.	Helicopter	3/28/2021	No	Precision Unmanned Operations
11	570007	Paggen, Cody A.	Helicopter	4/28/2021	Yes	Precision CFI
12	570365	Blanton, Sarah G.	Helicopter	6/29/2021	Yes	Atomic Helicopters followed by Precision CFI
13	568975	Wiganowsky, James A.	Helicopter	6/30/2021	Yes	Precision CFI

## 5. BUDGET

### 5A. PROVIDE FIVE-YEAR COST MARGIN DATA AND ANALYSIS.

Academic Year	AY 2016-17	AY 2017-18	AY 2018-19	AY 2019-20	AY 2020-21
Tuition	\$ 35,330.00	\$ 10,615.00	\$ 60,828.50	\$ 87,079.00	\$ 96,405.00
Enrollment	120	29	165	250	275
Cost In Progress	\$ 55,054.04	\$ 21,798.73	\$102,345.01	\$ 149,253.05	\$112,467.40
Margin In Progress	\$ (19,724.04)	\$ (11,183.73)	\$ (41,516.51)	\$ (62,174.05)	\$ (16,062.40)
FTE	9.80	2.33	13.62	17.66	19.60

The cost margin data analysis demonstrates a substantial growth in the enrollment numbers with the AY 18-19 enrollment at 165 increasing to 275 for AY 20-21. Data for the first half of AY 21-22 enrollment is 248 and a projection for the entire AY 21-22 is expected to be at least 375.

Academic Year	AY 2021-22 FA21 & WI22	AY 2021-22
Enrollment	248	?? 375-400 ??

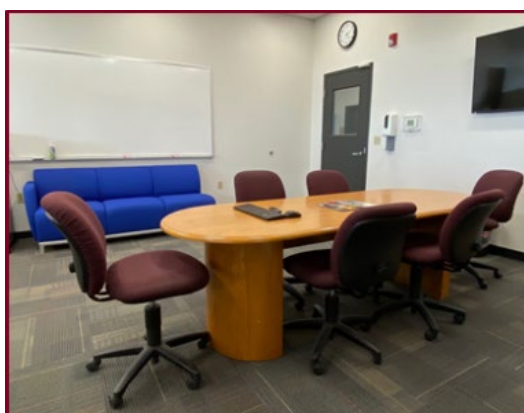
This would be at least a 24.2% increase in enrollment between AY 20-21 and AY 21-22.

5B. SUMMARIZE PREVIOUS ANNUAL PROGRAM VIABILITY STUDY RESULTS AND EXPLAIN HOW CHANGES IMPACTED STUDENT LEARNING OUTCOME PROFICIENCY. IF THIS HAS NOT OCCURRED, DESCRIBE PLANS TO ADDRESS THIS.

None applicable. No Viability Study has occurred.

5C. EXPLAIN ANY BUDGETARY CHALLENGES AND ANY PLANS TO ADDRESS THEM.

- From Strategic Plan 3.0 Umbrella Goal 4: Develop and deploy non-credit training with the Redbird MCX simulator. This goal will require the posting of a new Aviation Coordinator position. A draft of the new position will include:
  - Manage new simulator and student/instructor scheduling
  - Manage high school outreach and dual credit enrollment
  - Maintain student training files
- Request matching furniture to replace the old mismatched furniture in the Aviation Center





- Request an Instructor's Station, with desk and chair, be placed next to the MCX Simulator.



## 6. CONCLUSION

### 6A. DESCRIBE PROGRAM STRENGTHS.

The strength of the program lies in our collaborative and transparent partnership with Precision Aviation which has safely and efficiently provided outstanding flight training to our students.

Our program is committed to students' success and strives to provide an individualized advising plan to ensure the successful completion of the aviation program.

### 6B. DESCRIBE PROGRAM WEAKNESSES.

The expense of the program is a detractor for non-VA students. The main hindrance to the program's expansions is the VA's 85/15 rule which limits the admission of more VA students.

### 6C. DESCRIBE SUPPORT NEEDED.

As we work to improve access for civilian students (which will increase VA enrollment), begin offering more dual credit online for high school students, and provide CMX simulator non-credit training, we will require more administrative and instructional support to manage the increased training, instruction, and advising needs.

Support for incoming Program Director from outgoing Director to ensure a smooth transition and maintain program integrity.

### 6D. CREATE NEW GOALS AND LINK THEM TO THE STRATEGIC PLAN.

The new Strategic Plan 3.0 umbrella goals were described in Section 1A of this program review.



INSTRUCTIONAL PROGRAM REVIEW RUBRIC				
	Highly Developed	Developed	Emerging	Initial
<b>1—Accomplishments in Achieving Goals</b>	Exhibits ongoing and systematic evidence of goal achievement.	Exhibits evidence of goal achievement.	Exhibits some evidence that some goals have been achieved.	Minimal evidence that progress has been made toward achieving goals..
<b>2—Labor Market Projection</b>	Thoroughly explains projected market demand and potential effects on program; presents highly developed plan to address projection.	Explains projected market demand and discusses several possible actions to address projection.	Minimally explains projected market demand and lists one or two actions to address projection.	Presents labor market demand without analysis/explanation and fails to list possible actions to address projection.
<b>3—Resources</b>				
<b>Professional Development</b>	Exhibits ongoing and systematic support of professional development opportunities.	Exhibits support of regular professional development opportunities.	Evidence of intermittent professional development opportunities.	Minimal evidence of professional development opportunities.
<b>Faculty Meeting Instructional Needs</b>	Employs a sufficient number of highly qualified faculty to meet instructional needs.	Employs an adequate number of qualified faculty to meet instructional needs.	Has a plan to employ an adequate number of qualified faculty to meet instructional needs.	Faculty numbers and/or qualifications are insufficient to meet instructional needs.
<b>Facilities and Equipment</b>	Facilities and resources meet current and future needs.	Facilities and resources meet current needs.	Evidence of a plan to have facilities and resources meet current and future needs.	Minimal evidence that facilities and resources meet current and future needs.
<b>4—Effectiveness</b>				
<b>Student Learning Outcomes Assessment</b>	Exhibits ongoing and systematic SLO assessment to adjust instruction.	Exhibits student learning outcomes assessment and uses results to change instruction.	Has a plan to engage in ongoing and systematic SLO assessment, including using results to change instruction.	Minimal evidence of SLO assessment.

Klamath Community College Instructional Program Review:

<b>Student Success</b>	Thoroughly analyzes trends in enrollment, degrees awarded, time-to-completion rates, and formulates comprehensive plans to address them.	Describes trends in enrollment, degrees awarded, time-to-completion rates, and formulates plans to address them.	Describes trends in enrollment, degrees awarded, time-to-completion rates, and makes an attempt to plan to address them.	Minimal description of trends and/or fails to formulate plan to address them.
<b>5—Budget</b>	Financial resources meet current needs and are projected to meet future needs.	Financial resources meet current needs.	Evidence of a plan to acquire financial resources to meet current needs.	Minimal evidence that financial resources meet current needs.
<b>6—Strengths and Weaknesses</b>	Strengths and weaknesses are described accurately and thoroughly.	Most strengths and weaknesses are described accurately and thoroughly.	Some strengths and weaknesses are described accurately and thoroughly.	Minimal evidence that strengths and weaknesses are described accurately and thoroughly.
<b>7—New Goals and Plan</b>	Multiyear planning process with evidence of use of assessment data in planning.	Multiyear planning process with some assessment data.	Short-term planning process recently implemented.	Minimal evidence of planning process.
<b>8—Overall Evaluation</b>	Evidence of ongoing systematic use of planning in selection of programs and services.	Exhibits evidence that planning guides program and services selection that supports the college.	There is evidence that planning intermittently informs some selection of services to support the college.	Minimal evidence that plans inform selection the of services to support the college.
	<b>Highly Developed</b>	<b>Developed</b>	<b>Emerging</b>	<b>Initial</b>