

Lane Community College

Flight Technology Unit Plan 2004 - 2005

Program Learning Outcomes, Goals and Performance Indicators

Program Learning Outcomes/Goals	Performance Indicators
1) Demonstrate employability skills required for initial employment and advancement in the industry that include: attendance, proper attire, customer relations, following directions, working in teams, and understanding work rules and ethics.	90% of the first year students will qualify for the "select student" status by receiving a recommendation from a full-time contracted faculty member. 95% percent of the second year students will complete their programs as "select students". Criteria to qualify for the "select" status will be determined and published by the faculty prior to the start of the academic year.
2) Demonstrate safe work practices and equipment usage while performing operations in a flight environment.	95% of all students will pass a safety written and demonstration test.
3) The graduate will be certificated by the FAA as commercial pilot and prepared for entry-level position as a pilot and flight instructor in the air transportation industry.	95% of the students who complete the program will have gained the necessary competencies to obtain entry level employment.
4) Demonstrate knowledge and skills to qualify as a pilot crew member for corporate flight departments and manage a flight department for a corporate operator.	95% of the students who complete the program will pass a FAA or departmental corporate crew operator's examination.
5) Accurately use mathematics and systems of measurement by demonstrating proficiency in: • unit conversions • computational analysis defining operational performance. • performance tables, charts and graphs. • interpolation to derive implied values. • use of aviation specific manual and electronic calculators to determine time, rate and trends.	95% of the program completers will pass a final program computations examination with an 80% or better score.
6) Demonstrate technical abilities in researching, accessing and interpreting written, computer program or web-based reference materials.	All students will conduct research with citations in a written report in both the first and second year of the program.
Student Success Goals	Performance Indicators
Students will have access to the program.	The program will achieve the following student to faculty ratios: R-SFTE / FFTE = 10 : 1 CH-SFTE / FFTE = 8 : 1 This means for every funded faculty position 10 reimbursable student full-time equivalents should be enrolled or 8 credit hour student full-time equivalents. The program did not meet this student access goal by achieving a 9.74 to 1 R-SFTE/FFTE ratio, and a 7.93 to 1 CH-SFTE to FFTE ratio.

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Students who declare their major in this program will increase as a percentage of the total students enrolled.	145 students were declared as flight technology majors.
Program graduates will increase as a percentage of the total students enrolled.	
The percentage of enrolled female students in the program will exceed the percentage of females in the division programs.	11.7% of the program students were female. 12% of the students in the advanced technology division were female.
The percentage of enrolled non-Caucasian program students will exceed the percentage of the non-Caucasian students in the college.	13% of the program students were non-Caucasian.
The percentage of program students who complete each term will exceed the college completion rate.	
The percentage of program term completers who receive a C- or greater will exceed the college "success" rate.	
Students will complete the program within three years.	90% of the students who complete the two-year manufacturing program will have completed within nine terms.
Student completers will be asked to evaluate their overall satisfaction with the program training.	95% of the students who complete the flight technology program will express satisfaction with the level of training provided.
Employers will be satisfied with the job performance of the prior year's program completers.	90% of employers will express job performance satisfaction with the program's student completers.

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Program Outcomes Assessment Analysis

Key Question: Please provide a summary analysis of your projected program outcomes for 2003-2004. Please include assessment of program outcomes as defined in your 2003-2004 Unit Plan.

Enrollment summary:

Recruits and new student starts (head count) numbers are showing modest gains. FTE numbers are tending to decline. Our marketing effort appears to be reasonably effective considering we are operating with a zero marketing budget, so virtually all marketing is accomplished by sweat labor and unpaid time. Virtually all marketing is supported out of unit operational funds and resources donated by key staff; significant cost increases are severely limiting our student's ability to maintain a constant rate and robust training regimen. Students often exhaust their funds well before the end of a term. This has a highly negative impact on our operational efficiency: students must spread their training over a longer period of time, resource utilization trends "down-ward" during a term, reducing airplane fleet utilization efficiency, negatively impacts the flight instructors' revenue hours and we have to spread our maintenance personnel

and office staff support costs over reduced revenue hours on the airplanes; post 911 operating environment at the national level has limited the number of international students we might otherwise attract and our high rate (fee) structure significantly limits our ability to be competitive in the larger market place. Purely in terms of costs to the students, our program is not cost competitive. Our marketing edge is the perception of quality due to our college association including financial aid, the degree program and progressively more important, our developing association with the two major Oregon universities. As a part of a four-year degree program, the articulated program is cost and education value competitive with "big name" aviation universities in the US.

Program summary:

Those elements of the initiative plan for 2003-2004 that can be accomplished with minimum dollars and Carl Perkins funds have been largely accomplished. Big ticket items, such as additional airplanes, replacement of airplanes and up-grades on the simulator have not been accomplished. Funds to purchase tooling for the shop to improve our ability to do engine overhauls have not been included in the annual unit budget.

Needs assessment

We do a needs assessment relative to the type and level of training we need to provide on a continuous basis, primarily by consulting with members in the airline and corporate aviation industry, interviews with our alumni that are now employed in the industry. We also interview our staff instructors after they have gone through a pre-employment interview with an airline company. The objective is to identify areas we need to stress, or add content. We do not do needs assessments for individual learners apart from minimum scores on placement tests.

Satisfaction assessment

We do not use a formal assessment instrument. We do maintain a record of student participation, maintain a log of students cancellations and record the reasons for cancellations. This data may be used to trigger consultation with the student if the absence/cancellation instances become excessive secondary level assessments are derived from class evaluation records.

Assessing learning outcomes:

Due to the overall structure of this program and the influence of the FAA standards as well as a very high level awareness of safety, students are subject to a very large number of assessment/testing experiences in several modes, including written testing, oral testing and practical testing.

Environmental assessment:

Administration building: office spaces are cold during the winter, and colder in the summer. The outside temperature sensor is on the south side of the building – sun shines on the sensor and turns on the air conditioner, even in the winter: "the color blue is in." [The problem is a stupid computer.] The simulator bay does not have anywhere near enough air conditioning capacity to handle the heat load during the summer.

Dispatch facilities: Facilities are adequate; there is a need for additional computer capacity to support computer dispatching, flight records keeping capacity and an ability to doing aircraft and instructor scheduling on-line.

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Shop facilities: Overall, the shop is quite adequate, however, there are some remodeling needs required to accommodate changes in the manner we do business. The building has a lot of space that is not usable above the shop floor. A mezzanine for general storage would release shop floor space and provide for floor area to build office space and a semi-cleanroom. Some additional tooling is important to support doing engine overhauls on training fleet airplanes on site.

Assessing cost-effectiveness:

We periodically do rate surveys in the industry, typically by calling other programs in the nation. We also use industry resources to determine salary schedules and trends for employment.

Costs – our rate structure is near rates charged by private operators in the industry. This is a bit troubling as our students pay tuition and other fees incidental to being associated with the college which are not commonly charged by private providers. As compared to value of the training, for those students that prevail and establish a career as a pilot in the airline industry, the training we provide is absolutely essential for establishing an airline career. Pilots can expect to eventually realize greater income than professional practitioners such as physicians or lawyers (averaged income in Oregon). Generally this is true after about 10 years in the respective industries.

Dropout assessment:

Dropout data is not recorded as a normal part of our managed data collection.

Informal evaluation; typically, students dropout due to financial limitations, or for personal/family reasons.

Post-completion follow-up Assessment:

No formal post completion data is collected. Generally, our graduates are very enthusiastic about their elected career and the training experience at Lane. They often return to visit and share about their experiences – anecdotal data.

Qualitative Assessments:

At this time there are no plans to increase the amount of testing (assessing). We do periodic reviews of all our course materials and related testing. All our students are required to take FAA developed and evaluated tests and our program must be flexible enough to meet the constant change in the FAA system.

Quantitative Assessment:

All quantitative assessments are determined by compliance with FAA minimums.

Pre-testing/post-testing:

We do not employ a system of pre-testing. We do extensive integrated testing and post testing. Testing modalities include, in-house written test instruments, FAA provided written test instruments conducted by proctors outside the program, oral exams and practical exams.

Portfolio Assessments:

None. Portfolio-like records are available in the form of transcripts, personal pilot logbook records, FAA certificates and earned degrees.

Program Operating Analysis - FY 2006

Flight Technology

	Fiscal Year 2006	Expected Model	Actual	Difference	IRAP	Analysis
1	Enrollment	M				High, Medium or Low Cost Program
2	Reimbursable Student FTE	77.82	85.80		79.9	510 contact hours = 1 R-SFTE
3	Credit Hour Student FTE	66.30	73.10		72.9	45 Credit Hours = 1 CrdHr-SFTE
4	Staffing					
5	Full-time Equivalent Faculty	3.315	2.000	-40%		Actual = Enrollment Reports FY06
6	Part-time Equivalent Faculty	0.829	2.144	159%		Actual = Enrollment Reports FY06
7	Total Faculty FTE	4.144	4.144	0%		
8	Budget					
9	Student Fees		(879,694)		(834,315)	Actual = Banner FY06, Period 14
10	FT Faculty Dollars	203,059	129,929	-36%		Actual = Banner FY06, Period 14
11	PT Faculty Dollars	32,997	232,853	606%		Actual = Banner FY06, Period 14
12	Lab Assistant Dollars	16,576	-	-		Actual = Banner FY06, Period 14
13	Administrators Dollars		79,718			Actual = Banner FY06, Period 14
14	FT Classified		203,325			Actual = Banner FY06, Period 14
15	OPE	127,252	315,786	148%		Actual = Banner FY06, Period 14
16	Materials and Supplies	12,432	312,978	2418%		Actual = Banner FY06, Period 14
17	Equipment	16,576	-	-		Actual = Banner FY06, Period 14
18	Direct Instruction Costs	408,893	394,895	-3%	392,874	Expenses are lower than expected.
19	Operating Ratios					
20	R-SFTE/Total Faculty FTE	18.78	20.70	10%		
21	CrdHr-SFTE/Total Faculty FTE	16.00	17.64	10%		Faculty are serving more students.
22	Cost / R-SFTE	5,254	4,603	-12%	4,918	
23	Cost / CrdHr-SFTE	6,167	5,402	-12%		Cost per student is lower than expected.
24						
25	Revenue		Revenue	Difference		
26	Tuition		248,079		217,949	Actual = Banner FY06, Period 14
27	Program Fees (Differential)		-			
28	Public Support / CrdHr SFTE	3,807	326,641		304,415	RFTE*\$3,807
29	Other Instructional Revenue					
30	Total Operating Revenue		574,720		522,364	Contribution to Total College Revenue
31	Instructional Function Revenue	54.5%	313,222			Based on Model's Functional Cost Ratios
32	Direct Instruction Revenue	100.0%	313,222	-21%		Expenses are Greater than Revenue
33						Self Supporting Program
34	Indirect Instruction Revenue	0.0%	-			Portion of indirect instructional costs
35	Other Functions Revenue	45.5%	261,497			Student Svs, College Svs, etc.

