Part I. Alignment with College

Chapter 0: Unit Alignment
Key Question: How is your unit aligned with the college's goals and values?

1) <u>Core Values</u>
Review the work your unit did on core values in 2003-2004. Does the alignment you described remain accurate? Please update by removing commentary that no longer applies and, where appropriate, adding commentary that reflects changes or additions you have made since last year's Unit Plan.

Core Values (6)
- Learning
- Diversity
- Innovation
- Collaboration and Partnership
- Integrity
- Accessibility

- *Learning*
  The evidence that learning has occurred is - there is a measurable change in behavior. Our objective is to assure the learner has acquired a comprehensive body of knowledge and developed a complex set of skills: skills essential to meet or exceed multiple levels of testing leading to certification by the Federal Aviation Administration (FAA). Further, evidence of learning is continuous high levels of demonstrated competence. At the program level, more than 250,000 flight hours of instruction have been provided to Lane students; graduates have a lifetime career marked by injury free flying as a pilot in the air transportation industry.

- *Diversity*
  This program aggressively recruits students from diverse national, ethnic and cultural backgrounds. Women have been very successful in this program and many are now in responsible positions in the aviation industry as pilots and managers.

- *Innovation*
  Numerous innovative approaches have been adopted and put into practice to assure our students are successful as students and as they practice in their profession. Numerous partnerships with Oregon universities, public schools, other community colleges have been forged; Lane Flight Technology was a primary force that resulted in the establishment of the Oregon Aviation Education Initiative. This effort has been fundamental to an increasing number of links with the airline industry. Lane alumni are outstanding ambassadors of the Flight Technology program.

  Extensive use of recently developed textual note guides and up-dated lab sets have been designed and developed to enhance the instruction/learning process. The unit has secured significant grant monies used specifically to install equipment in the airplane fleet so our

students have an opportunity to become skilled in the use of the technology emerging in the air transportation industry.

As of this writing, unit airplanes are equipped with the very latest technology not yet supported by the Eugene Airport. Ground based equipment is expected to be operational by the end of 2005 as the new parallel runway at Eugene is completed and ready for service.

The program has the most highly articulated relationship with the major Oregon universities ever in its history and the program has been aggressively developing working relationships with high schools to support an increasing number of internship opportunities.

- *Collaboration and partnerships*
  Managers in the aviation program at Lane has been very successful at developing working partnerships with the major Oregon universities. Lane is now centrally postured to network the attributes from the University of Oregon and Oregon State University for the purpose of developing and accrediting a new BS / BA degree program granted by OSU. Lane is the primary source of aviation related technology supporting the new degree: further, principles in the Flight Technology Department have been integral to the development of a *new second degree* granted by the OSU School of Education with a specific orientation to prepare people for key rolls in Adult / Professional education. Lane has become an active partner with the University of Oregon Psychology Department to provide lab opportunities for UO students enrolled in an Aviation Psychology course. The aviation programs at Lane have key partnerships with several major airlines and the largest general aviation avionics manufacturer in the nation.

- *Integrity*
  Senior faculty consistently exhibit high degrees of professionalism and technical and personal integrity. Cumulatively, senior staff represents well over 100 years experience in the industry. The Lane program is recognized as a bench mark standard used by other programs and by the FAA. In all segments of the program, levels of material development, skills development and knowledge is well beyond the FAA's published standards.

- *Accessibility*
  - The program is accessible to all individuals wishing to learn and develop piloting skills.
  - Individuals may enroll for specific skills or proficiency training.
  - Individuals may enroll to qualify for specific FAA pilot certificates.
  - Students in transfer degree program for traditional university degrees may concurrently gain training in the aviation programs.
  - Individuals may enroll for AAS degrees.
  - Individuals may enroll in an AAOT program.
  - Every effort is made to assist students with limitations to gain assistance either from within the department, from college resources or from agencies such as the FAA. Individuals wishing to become licensed pilots must pass the FAA required medical examination.
  - The program supports community organizations and public schools for the purpose of exploring aviation career options.

- The aviation programs have a web site that is reviewed periodically and updated.

2)   Strategic Directions

The Strategic Directions for Lane have been updated and expanded since the 2003-2004 Unit Plan. Please review the changes and provide specific examples of how your unit works to further these goals.

Strategic Directions (3)
Transforming Students' Lives

Foster the personal, professional, and intellectual growth of learners by providing exemplary and innovative teaching, learning experiences and student support services.

Commit to a culture of assessment of programs, services and learning.

Position Lane as a vital community partner by empowering a learning workforce in a changing economy

Response:

The unit continually monitors student progress, industry trends and needs to assure the learning experience is timely and appropriate. Much of the instruction provided by this unit is one-on-one; instructional staff have the opportunity to individualize instruction to meet a learner's specific needs. Collaboration with senior members is encouraged as a strategy to assure all instruction delivered is highly effective and meets the learner's individual needs.

Assessments include numerous written instruments, flight planning sessions are practical assessments applicable to specific planned flights which include obtaining actual weather data and performing actual performance calculations – then actually making the flight.

In addition to formal written instruments, oral examinations are conducted at the end of each defined stage of instruction and extensive practical demonstration of skills.

Extensive integration of input from the advisory committee and help from the Oregon Aviation Initiative has provided increased opportunities for students to gain internship opportunities. Cooperative education programs with the air traffic control facilities have been very valuable for our students.

Transforming the Learning Environment

Create a diverse and inclusive learning college: develop institutional capacity to respond effectively and respectfully to students, staff, and community members of all cultures, languages, classes, races, genders, ethnic backgrounds, religions, sexual orientations, and abilities.

Create, enhance, and maintain inviting and welcoming facilities that are safe, accessible, functional, well-equipped, aesthetically appealing and environmentally sound.

Response:

This unit constantly recruits from culturally diverse populations from many different nations. Facilities are well maintained, equipment is well maintained and represents current technology

Transforming the College Organization

Achieve and sustain fiscal stability.

Build organizational capacity and systems to support student success and effective operations.

Promote professional growth and provide increased development opportunities for staff both within and outside the College.

Response:

The Flight Technology unit has been on a self-support basis since the fall term of 2001. A major concern: continued increases in fees and the number of fees students are subject to in addition to the escalating personnel overhead, especially the radical increase in OPE rates and a 60 percent increase in fuel costs has forced substantial program fee increases. All these fee increases are beyond the control of the unit manager.

The strategy has three primary parts: 1) control expenses as much as possible; 2) and to aggressively market the program; 3) make adjustments in staffing payroll support.

Marketing: Our marketing has been effective, our student head counts are up; however, the rapid increase in costs has driven us beyond the elastic limits typical of our students; the result is our actual FTE's are declining and "actual" revenues are decreasing. The student's resource management strategies are to take minimum loads and spreading their training over a significantly longer time period.

Developing a much wider network of partners is helping to provide more opportunities for our students and recruiting students from the two major universities has been helpful as the university population is more accustomed to paying the higher fee structure. The unit is expecting to receive funds from the Oregon Space Grant Consortium. These funds are to be used to buy equipment and develop programs that we can use to market to all the high schools in the county, to the universities, the seven Lane Learning Centers as well as to local business leaders and service clubs.

Numerous changes have been made in terms of how we manage our resources, including the manner in which students are assigned to airplanes, instructors and time slots. The airplane fleet has been changed to reduce the maintenance and fuel costs and improve the down-time numbers for airplanes in the shop for inspections and service.

Principles in the unit have actively worked with the University of Oregon Psychology Department to team teach a course in Aviation Psychology. This course integrates the use of resources unique to the Flight Technology unit and resources unique to the UO.

Principles in this unit have been the catalyst that resulted in the development of the new Aerospace Leadership degree at OSU and the, soon to be, *New Degree* in education from OSU. These projects significantly increases professional development of our students and university students gain practical skills that contribute to the value of their university degrees.

3)   Learning Centered Principles

The Learning Centered Principles for Lane have also been updated and expanded since the 2003-2004 Unit Plan. Please review and provide specific examples of how your unit works to integrate these principles into your unit's methods and outcomes.

Learning Centered Principles

Lane provides opportunities for transformation through learning.
Lane engages learners as active partners in the learning process.
Lane creates a learning environment that motivates and inspires students to recognize their responsibility for their own learning.
Lane offers multiple options for learning based on proven and innovative theories and methods that address the needs of diverse learners.
Lane commits to a culture of assessment of programs, services and learning, honoring the values of intellectual freedom, community responsibility and student need.
Lane fosters knowledge and appreciation of diversity among staff and students and encourages pluralism and intercultural competence. Lane engages learners from diverse cultural and social contexts.
Lane is committed to both individual and organizational learning.
Lane students and staff are a community of learners, all of whom contribute to learning.
Lane promotes open communication among staff, students and the community within and across organizational and physical boundaries.

By virtue of the very nature of aviation related training, lives are transformed in major ways: graduates have met federal standards demonstrating their knowledge, skills and airmanship. The instructional/learning process is one of the most innovative in the industry including very high levels of collaboration between all staff members and the students. This is one of the few programs offered at lane where the department maintenance technicians are a part of the student's learning experience. Assessment is a constant – the structure of the aviation program at Lane reflects the very high level of personal responsibility as a pilot and multiple assessment instruments are used throughout the training regimen.

Part II. Unit Description

Chapter 1: Unit Description
Key Question: Who are you? Answer this question by providing the following information about your unit.

1)   Unit Mission/Vision
        Does your unit have a Vision or Mission Statement? When was it written or updated? Do you have a process for regular review?

> *Mission*, provide the very highest quality instruction possible.
> *Mission*, make a significant contribution to the community by providing superior training.
> *Mission,* Provide an environment that fosters the formation of a set of clearly defined vision for their lives and realistic goals.
> *Mission,* be an obvious vanguard program in the aviation education industry.
> *Mission,* be a vital link between the college and the global aviation community.

> [Mission statement was updated 10-15-04. Review and update as a part of the annual in-service tasks].

Catalog Description
    How do you describe your unit and instructional offerings in the college catalog? How does your unit manage the review of catalog copy each year?

> *Learning outcomes:*
> -   Be certified by the FAA as a commercial pilot and prepared for an entry level position in the air transportation industry.
> -   Have the technical knowledge and skills required to serve in the capacity as a flight crew member.
> -   Have the skills required to manage a commercial flight department for corporate operators.
> -   Be skilled in using multiple resource bases essential for technical data common to the operating of corporate/commercial aircraft in the federal air space system.
> -   Be skilled in the multiple tasks essential for operational readiness including weight and balance calculations, conversions of weights and measures units, conversions from the English to Metric systems.

> [Catalog reviewed annually as a part of the tasking accomplished during the fall in-service.]

History/Significant Program Events
    How did your instructional unit evolve at Lane? What significant events have marked your growth? Do you have a system for maintaining an archival history of your unit? Do you have annual events that are representative of your unit's goals or teaching methods?

The program was initially established in 1967. Historically, the program provided training to students for the purpose of earning their Private Pilot, Commercial Pilot airplane certificates with an Instrument rating. Later a Helicopter program was added.

- The existence of the helicopter pilot training program was fundamental to the winning of a major helicopter pilot training contract from a Japanese company.

With the advent of 911 and the major economic challenges the college faced late in 2001, the program was reorganized into a self-support program. As a self-support program, operational costs needed to be significantly reduced, which lead to phasing out the helicopter program and the elimination of all leased aircraft. Substantial marketing has been required to sustain revenues. The program has not had a marketing budget since it became a self-support program; several zero-budget marketing strategies were developed including significant increased networking and articulation with the major Oregon universities.

By the end of 2004, the program will have provided well over 250,000 hours of injury free flight instruction. Hundreds of graduates are now enjoying high paying careers in the air transportation industry around the world.

Each year, toward the end of the spring term, a day long pilot proficiency event is held at the Cottage Grove Airport. Pilots engage in competitive piloting skills including demonstrations of precision landing techniques.

This event is followed by a formal awards ceremony. This is a formal event involving college administration, board members and community leaders who present awards and scholarships. Parents, friends and family members travel considerable distances to participate.

Degrees and Certificates

What degrees or certificates does your unit provide?

- *Two-Year Associate of Applied Science Degree?*   Yes
- *Two-Year Certificate of Completion?*   Yes
- * *Two-Year AAOT /* BA/BS in Aerospace Leadership from OSU
- *One-year Certificate of Completion?*   No
- *Cooperative Education?*   Yes

If you are a transfer program and don't offer degrees or certificates, how do your instructional offerings serve the AAOT, AS, AGS, or AAS degrees? Do any of your courses support Professional Technical programs?

The Flight Technology program is a unit within the Lane Aviation Academy structure, within the structure of the Advanced Technology Division. By definition, the Flight Technology program is a *Professional Technical Program* that has articulation with OSU preparatory for a BS/BA degree in Aerospace Leadership.

In consideration of the rapid integration of technology in the aviation industry and the significant increased demand for training in the industry, principals in the Lane Flight Technology program have been integral to the development of a new course in the OSU School of Education. Emphasis for this new degree is to develop skilled trainers to work with adult learners in a professional/technical environment.

5) **Organizational Structure**
Please provide a description of how your unit is administratively organized within Lane's instructional structure.

All aviation related programs offered by Lane are managed as a part of the Lane Aviation Academy. The Lane Aviation Academy is managed by a *Director* who reports to the Advanced Technology Division Chair.

6) **Staff/Faculty**
Please provide a list of your faculty and staff. For faculty, indicate FTE appointment, educational credentials, and primary area of expertise/instruction. For staff, indicate FTE appointment and primary job responsibility.

Name	Position /Responsibility	Work Load / FTE	Credentials
Harvey E. Birdseye	Director	Permanent 1.0 FTE	Ed.D, ATP, CFI
Bruce Gustafson	Director, Flt. Training ops.	Permanent 1.0 FTE	BA, ATP, CFI
King Povenmire	Chief Instructor	Permanent 1.0 FTE	MS, ATP, CFI, DE
Peggy Sherman	Administrative Coordinator	Permanent 1.0 FTE	
Candice Johnson	Office	Permanent 1.0 FTE	
Susan Carlile	Office	Permanent 1.0 FTE	
Dan Niles	Chief Maintenance Technician	Permanent 1.0 FTE	A&P, IA
Dennis Kinch	Av. Maint. technician	Permanent 1.0 FTE	A&P
		[temp. PT FTE is variable]	
Dave Fischer	Flight instructor	Temp. PT	BA, CFI
Stuart Hargrove	Flight instructor	Temp. PT	CFI
Tiffany Hennigan	Flight instructor	Temp. PT	CFI
Jane Hetzer	Flight instructor	Temp. PT	CFI
Darrin Kaufmann	Flight instructor	Temp. PT	BS, CFI
Justin Killam	Flight instructor	Temp. PT	CFI
Brian Marquart	Flight instructor	Temp. PT	CFI
Steve Olson	Flight instructor	Temp. PT	BA, CFI
Sean Parrish	Flight instructor	Temp. PT	CFI, A&P
Steve Senderling	Flight instructor	Temp. PT	CFI
John Stevenson	Flight instructor	Temp. PT	CFI
Claire Syrett	Flight instructor	Temp. PT	BA,CFI
Jessica Wickum	Flight instructor	Temp. PT	BA,CFI

7) **Student Profile**
Please provide demographic data for your student population.

Dept.	Major	Descript.	#	Gend. F	F%	Intl.	Wh	Min.	Unk	%Min
Flight Tec	4365	Flight Tec	145	17	11.7%	1	112	16	16	13%

Dis	AcD	EcD	Ac+Ec	SP#	%Spop	Satis	% Satis
	35	47	69	69	48%	136	94%

8)   <u>Facilities and Equipment</u>
Describe your campus space. What are its strengths? Its challenges? What are your utilization ratios? Provide a copy of your equipment inventory. What are your equipment strengths? Challenges? Do you have any plans in place for equipment replacement?

Facilities
All Flight Technology facilities are located on the south end of the Eugene airport.
Facilities Include:
  - Main administration building with a classroom and simulator bay, 4500 square ft.
  - Instructor office spaces, dispatch area and second classroom are in facilities leased from the City of Eugene, 4000 square ft. (The original airline terminal building.) and
  - Shop/aircraft maintenance facility, 5000 square ft.

Strengths – The administrative building facilities are excellent: however, we will have a need to add another simulator with capability that reflects the current trends in technology. The shop spaces are very adequate and large enough to accommodate future growth in the program and large enough to accommodate larger airplanes planned for the future and the shop volume is great enough to meet storage and future maintenance needs, assuming some remodeling is completed.

Challenges – No serious challenges in the administration building except, a perennial aggravation with temperature control – heating/cooling system difficult to control. During the summer the air conditioning capacity for the simulator bay is totally inadequate.

The shop has significant wasted space above the shop floor: an ideal plan would be to build a mezzanine that would be used for general storage and add an enclosed area on the main shop floor for maintenance technician office and a semi-cleanroom for engine overhaul activities.

The leased facilities are used primarily for instructor office space and aircraft dispatch. Since the original intended use of the building was something other than the current use, the improvised instructor office space is crowded and not well suited for instructional purposes.

Equipment
1 Frasca 142 simulator
13 airplanes
15 computers
1 weather network system
Classroom equipment (1 film projector; two digital projectors, two dedicated computers, one navigation computer trainer
Maintenance shop equipment (jacks, bead blaster, air compressor, electrical test equipment,
General aircraft maintenance parts storage and records storage equipment.

Replacement – No programmed system for up-grading and replacing equipment. Currently, the operational costs (overhead) absolutely strap our income capacity. Rapidly escalating operational expenses have out stripped our ability to accrue carryover funds and provide a basis for long-term planning for replacement and up-grading our equipment.

9)   **Budget Profile**
Provide a profile of your General Fund Budget. If appropriate, provide a profile of Restricted Fund 8 (grants, etc.) and Restricted Fund 9 (tuition-based sections).

Response re: General Funds: No general funds allocated to directly cover operational costs of the program: this program has no ICP or M & S budget
.
Fund 8 Response: Generally, all grant funds come from Carl Perkins, typically in the range of $40,000 annually.

Fund 9 Response: All revenues are generated from student fees and tuition fees. Typical annual operating revenues are very close to $1 million.

Part III.   Performance 2003-2004

Chapter 2: Program Outcomes Data, 2003-2004
Key Question: What were the results of providing your program in 2003-2004 as demonstrated by student enrollment, student success, and cost efficiencies? **Using the provided spreadsheet,** *please include assessment of program outcomes as defined in your 2003-2004 Unit Plan.*

    Enrollment Data
    Please provide the following enrollment data for 2003-2004:
    Program Level: Student FTE   89.78
    Course Level: Student FTE (no reliable data)
    Student FTE/Faculty FTE ratios   10.1
    Capacity Analysis (no reliable data)

    Student Success Data
    Please provide the following student success data for 2003-2004:
- Student Retention ratios (no reliable data)
- Student Completion ratios (no reliable data)
- Degrees/Certificates Awarded
- Job Placement Information (students completing the Flight Instructor Certificate have 100 % placement)

1)   **Budget**
    Please provide the following budget information:
- General Fund:

    -   General Fund Allocation $290,307.00
    -   Actual Costs of Unit Operation $1,120,601.00
    -   Revenues (Course Fees, etc.) $830,294.00
    -   Cost per Student FTE $3,234.00

- Other community support (in-kind, donations, cooperative worksites,….)   [none]

Program Outcomes Data, 2003-2004

	Expected Outcomes for 2003-04	*Actual Outcomes For 2003-04*	*Analysis of Comparison (Link to 2004-2005 Goals)*
Enrollment Data			
Program Level: Student FTE	*99.000*	*89.780*	*100.00*
Course Level: Student FTE*			
Unit Faculty/ Student FTE ratio	*9.7*	*10.1*	*10.5*
Enrollment Capacity Analysis			
Student Success Data			
Student Retention Ratios			
Student Completion Ratios			
Degrees/Certificates Awarded			
General Fund Budget			
General Fund Allocation	*344,160*	*290,307*	*400,000*
Costs of Unit Operation	*1,258,955*	*1,120,601*	*1,300,000*
Revenues Generated by Your Unit	*914,795*	*830,294*	*913,323*
Cost per Student FTE	*3,476*	*3,234*	*3,200*

* Please attach a Course Enrollment report for summer 2003 through Spring 2004. In this table, you only need to address any anomalies in course enrollment that may have occurred in 2003-2004. If you need additional rows, just add them to the template.

Chapter 3: Program Outcomes Analysis, 2003-2004
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:
Three trends:
a) recruiting 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;
b) 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;
c) 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 <u>not</u> been included in the annual unit budget.

(i) **Approaches you might take include:**	**Methods of assessment you might use** include:
1. *Needs Assessment*	1. *Qualitative Assessment*
2. *Satisfaction Assessment*	2. *Quantitative Assessment*
3. *Assessing Learning Outcomes*	3. *Pre tests/post tests*
4. *Environmental Assessment*	4. *Portfolio assessment*
5. *Assessing Cost Effectiveness*	
6. *Dropouts Assessment (program or college)*	
7. *Post-Completion Follow-up Assessment*	

Responses: *Approaches we might take*

1. *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.

2. *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.

3. *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.

4. *Environmental assessment*: In terms of facilities:
   a. 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.]
      i. The simulator bay does not have anywhere near enough air conditioning capacity to handle the heat load during the summer.

   b. 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.

   c. 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.

5. *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.
   a. 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.

b. 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.

6. *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: Not 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.

Responses: *Methods of assessment that we might use*

1. *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.

2. *Quantitative Assessment*: All quantitative assessments are determined by compliance with FAA minimums.

3. *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.

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

1) <u>**How effectively did you fulfill your unit's mission?**</u>
What approach did you take to gather evidence of your performance? What method of assessment did you use?
What does the evidence you gathered tell you about your strengths and/or weaknesses in fulfilling your mission in 2003-2004?

a) <u>*Approach used to gather evidence of performance*</u>: empirically; data acquired from testing records, logged data comprehensive training records and logged time in standard FAA Pilot logbook.

b) <u>*What method of assessment did you use*</u>: the method is essentially a checklist system – check the evidence of accomplishment against the mission statement.

Essentially all mission issues stated for 2003 – 2004 were, at least in part, couched in the revised structure incidental to the change to a self-support status; second major dynamic has been the impending integration of all aviation programs into the Lane Aviation Academy.

The self-support status has driven a need to become significantly more entrepreneurial which has driven the need to be more competitive in the market place. This fact has driven the need to significantly enhance the technology used in our training fleet of airplanes.

Ultimately, the assessment has been the question – did we do what we said we would do? The response is absolutely yes; it must be understood that work is being done on multiple fronts, each effort is progressing at its own logical rate.

b) <u>*Evidence that we were successful in reaching our mission*</u> goals: In terms of being successful to develop functional networks that enhance our marketing and professional development, we were very successful…joint projects with high schools are now functional and we have a working partnership with the two major Oregon universities.

In terms of modest technology up-grades in our training fleet - those were funded entirely by Carl Perkins monies. Intended up-grades for avionics systems for the 2003-2004 were completed. None of the "big-ticket" projects, such as the acquisition of a Cessna 340, nor the GPS system up-grades for our simulator were accomplished.

2) <u>**How well did students meet your learning outcomes at both the Program Level and Course Level?**</u>
What approach did you take to gather evidence of your performance? What method of assessment did you use?
What does the evidence you gathered tell you about your strengths and/or weaknesses in helping students meet their learning outcomes in 2003-2004?

a) <u>*What approach is used to provide evidence of our performance?*</u> Extensive testing, including in-house testing instruments and FAA controlled testing. Records of stage checks and performance testing data provides good data as to program level performance.

b) <u>*Strengths and weaknesses helping students meet their learning outcomes*</u>: Overall, student success has been good with improving skills evident during performance evaluations and the significant number of students that are FAA certificated. We have a need to continue developing instructional proficiency to improve our "first pass" rate.

3)   <u>**How well did students meet Core Ability outcomes?**</u>
What approach did you take to gather evidence of your performance? What method of assessment did you use?
What does the evidence you gathered tell you about your strengths and/or weaknesses in helping students meet Core Ability outcomes in 2003-2004?

<u>*Approach used to gather evidence of our performance*</u>: The six items listed as ***Core Values*** for the college have been evaluated; analysis is derived empirically, data is derived by analyzing performance reviews. Performance reviews include periodic individual interviews with faculty. Subject matter covered in the reviews related to the core values – and the perceptions of what those values are and how they are manifest.

4)   <u>**How efficiently did you use the resources you were given?**</u>
What approach did you take to gather evidence of your performance? What method of assessment did you use?
What does the evidence you gathered tell you about your strengths and/or weaknesses in using resources efficiently in 2003-2004?

a) <u>*Evidence of resource management*</u>: Response to this question is couched in the fact that the Flight Technology program is operating on a self-support basis. College owned (controlled) resources are in the form of physical assets, such as airplanes, equipment and facilities. These resources are very efficiently utilized. Most data used to determine efficiency is derived from flight time records and instructional hours records compared to ideal models. Efficiency models are calculated by determining an ideal model, compare actual utilization and calculating the efficiency.

b) <u>*In terms of revenues, how are we doing*</u>: When doing a spreadsheet analysis, comparing the pre-911 unit operation costs with our current operational unit costs, our cost cutting measures have been highly effective. For short-term operations, the highly stripped-down budget appears to be okay: problem – budgeting for replacement and up-grades must be accounted for over the longer-term. Issue, problem we have absolutely no capacity for accumulating carryover and no facility for meeting our longer-term requirements. Continued escalation of cost increases, such as the college imposed expenses, increased numbers of fees and fee increases, as well as significant personnel expenses, such as considered increases in the OPE rates are out-stripping our ability to generate sufficient revenues to our actual unit operating costs.

5)   <u>**How well are you utilizing current technology?**</u>
What approach did you take to gather evidence of your performance? What method of assessment did you use? What does the evidence you gathered tell you about your strengths and/or weaknesses in utilizing current technology in 2003-2004?

<u>*Analysis of proficiency in the use of technology*</u>: The program has employed modest gains in the use of technology, such as *Power Point* presentations, CBT or on-line instruction. There are three reasons for not employing more technology: a) there is some financial overhead that must be met; b) changing modalities does require an investment of time - time is a commodity in very short supply; c) we have not taken time nor secured information that is essential for developing highly instructionally effective media. After interviewing students and integrating our in-house experience, there is evidence that instructors can become, what students call "clickers." There is evidence that suggests some technologies can be "over used." This suggests extensive use does not necessarily produce superior educational results – technology, such as Power Point can look nifty, however, the technology can be used as a tool of convenience for the instructors.

Since the advent of Banner, our office efficiency has suffered significantly. Coco did support special software that was developed specific for the purpose of logging flight hour data, instruction time, revenue tracking and the program provided extensive data records essential for comprehensive analytical extrapolations.

Since the adoption of Banner, operationally, our program has been reduced to a "cigar box" level technology. The dedicated software for the Flight Technology unit previously supported by Coco is not supported by Banner. This has had a major and adverse impact on the Flight Technology unit; department staff has had to improvise excel-based data files which substantially increases workload and severely compromises our ability to compile detailed performance data. We no longer have any computer based technology to track our aircraft maintenance history and maintenance costs a function of operational hours and revenues generation.

Major weakness is our inability to acquire software that meets our needs that is also compatible with Banner. From a managers perspective and staff workload demands, extensive manual data input is detrimental to our program operational efficiency.

Banner has essentially isolated our ability to track student progress through the financial aid qualification process. Not having this data can delay the student's actual starting their flight labs which has a major adverse impact on the student's progress, negative impact on department revenues and limits fleet utilization efficiency. This has a significant impact on the instructor staff as they are paid on the basis of contact hours. This is a particular problem for the winter term when weather is also a major factor for the flight labs.

6) **If your program works with an Advisory Committee, how effective was that relationship in helping you meet your program goals?**
What approach did you take to gather evidence of your performance? What method of assessment did you use?
What does the evidence you gathered tell you about your strengths and/or weaknesses in working with your Advisory Committee in 2003-2004?

- *Date of meetings and number of attendees.*
- *Attach membership list indicating community members, businesses and LCC faculty/staff.*
- *Describe committee involvement with curriculum changes, list any recent changes*
- *Other advisory committee information*
- *Signature of advisory committee chair*

Date of meetings and attendance: The advisory committee meets monthly at noon the second Monday of the month during the academic year, two special meetings are held during the summer. Typically 6 to 8 members attend.

Membership list:

(b) **Name**	(c) **Affiliation**
Colvin, Paul	LCC emeritus
Coplin, David	Aviation sales and contracting
Flynn, John	Retired: aircraft owner
Gibson, Gene	Owner, Gibson Folders Inc.
Groshong, Phillip	Retired, United Airlines Captain

McCraken, Roy	CPA, pilot
Ouellette, Richard	Engineer, pilot
Redhead, Paul	Eugene Airport Advisory Committee
San Romani	Pharmaceutical sales, pilot
Van Wolput, Rene'	D & R Excavation, pilot

Advisory committee involvement in curriculum change: Recommendations for program changes that contribute to assurance that the program is current with technology and industry trends. The committee was instrumental in the development of and highly supportive of the summer camp program this past summer and the committee is actively involved in working for the summer 05 camp.

Other Advisory Committee information: The committee has been an asset in terms of assisting our marketing efforts, input related to alternative fuel resources.

7) <u>**How well did you meet faculty and staff goals ?**</u>
What approach did you take to gather evidence of your performance? What method of assessment did you use? What does the evidence you gathered tell you about your strengths and/or weaknesses in meeting faculty and staff goals in 2003-2004?

Faculty and staff goals: Two major factors:
   a. make programmatic and marketing changes that enhance our revenue potential to minimize the risk of losing staff – this data is self-evident and the supporting information is derived empirically – all permanent staff are still here
   b. revised program offerings including the addition of multi-engine training capability and the integration of the *Special Curriculum*, **Professional Pilot Course.**

Evidence of strengths and weaknesses relative to staff and faculty: Numerous job assignment changes have been made to assure all operational functions are being met and done so efficiently. With the advent of the integration of all aviation related programs into the academy structure, office support staff have been reclassified so their job classifications and job descriptions match actual work assignments and workload. Evidence – empirically derived, tasks are completed and completed on time and done so with dispatch and efficiency.

8) <u>**Overall, what strengths do you believe your unit demonstrated in 2003-2004?**</u>

   a. Flexibility and adaptability: with the advent of rapidly occurring changes in our operating environment and with the advent of being a self-support unit flexibility is essential: survival is essential.
   b. Substantially improved operational efficiency, cost cutting strategies have been highly effective.
   c. Numerous innovative initiatives have been inaugurated to forge partnerships with Oregon universities, other community colleges and with the area high schools. Significant effort has been expended to forge partnerships with airline partners, such as Evergreen International and increased interaction with Horizon Air.

    d. Successfully secured grant funds that have been used to up-grade the avionics systems in the training fleet. The Lane program now has the most sophisticated avionics training systems in the Pacific Northwest. The objective is to gain a marketing edge.

    e. The program has been successful in working with the FAA to secure authorization for a *Special Curriculum.* This is fundamental to the development of a "Professional Pilot" training program based on an *abinitio* model. The Private Pilot TCO had been completed, the Advanced Course TCO's will be completed during the winter term 2005.

    f. By the end of 2004, ready for the beginning of the winter term 2005, two Cessna 152's will have been upgraded to full IFR capability, including one airplane with a complete new Garmin digital avionics package. During the spring term, a third Cessna 152 will be upgraded to full IFR capability. This is to support (ref. E above) an *abinitio* designed Professional Pilot training program.

9) <u>Overall, what challenges do you believe your unit faced in 2003-2004?</u>

    a) Major need is to adopt a comprehensive software package that actually meets the unique needs of the unit.

    a) Major problem – we desperately need an aviation fuel source that provides fuel at a reasonable price.

    b) Need to reorganize the unit operations in order to significantly reduce personnel costs. OPE charges are mounting at a rate far faster than the unit can expand its revenues.

    c) We have a need to secure resources to purchase the up-grades for our simulator. We are expecting to receive a gift simulator similar to the existing unit – due to the enhanced GPS and electronic display systems installed in some of our fleet airplanes, it is logical that we upgrade a simulator so we can provide "current technology" level training.

10) <u>What conclusions do you draw from this analysis about needed improvements or changes in 2004-2005?*</u>

Overview analysis

    a) In general terms, the strategies that have been adopted to meet the challenges posed by becoming a self-support unit are correct and the survival strategies are working as intended; however, there are still significant changes that must be adopted.

The result of making substantial improvements in our networking structure and marketing strategies has resulted in near record enrollments – at least in terms of headcount numbers; that is the good news. The downside is the FTE numbers have been progressively decreasing. Over the past three years, cumulative fee and rate increases, intended to bolster revenues, have actually resulted in reduced revenue hours sold and an actual (real) reduction in revenues. Our fee and rate structures have long since exceeded the elastic (pricing) limits for most our students. Since 2001, each fee increase has resulted in an associated revenue reduction. In 2001, the unit provided over 10,000 hours of flight instruction; with each rate increase there is an incremental decrease in flight hours sold; the flight hours projections for the current year indicate our instructional flight hours will be in the range of 6000 hours. Progressive rate increases are producing lower real revenues.

There is a need to generate more revenues; the short-term objective is to increase our activity to at least 8,000 hours (by the end of fall term 2005) per year. The sustained level needs to be closer to 10,000 hours per year, which we should be able to attain by the end of the fall term 2006. It is essential that through a combination of increased revenues and reduced costs that we can sustain at least a $150,000 / year carry over to pay for equipment replacement, up-grades and to purchase engines that we are unable to overhaul in our own shop.

b)   In terms of the academic elements, there is a need to make a comprehensive assessment of our courses, course content and assess the overall comprehensiveness. Within these assessment efforts, we must be mindful of the rapidly changing needs in the industry and the changing character of the learners.

Ultimately, our objective is to assure that our graduates are the very best prepared pilot candidates in the industry. It is imperative that we send to potential employers highly competent pilots who are also well prepared to learn. Our responsibility to students is to design and conduct a program that is robust and technically relevant. Our graduates will be prepared to continue our established tradition of graduating from airline crew training with a class standing in the top 10 percent.

In collaboration with UO and OSU we will be the first program in the nation capable of supporting a program to prepare professional airline pilots as "manager pilots" with education credentials.

Program Evolution

A little history: The Flight Technology program was originally established in 1967 and served primarily as a training program to prepare candidates for FAA airmen certificates. Later, a formal AAS degree program was developed and adopted. Today, most students in the Flight Technology unit are preparing for careers as airline pilots. The air carrier industry "essentially" requires a four-year degree: this fact and the fact of rapid integration of technology in the industry requires a revised instructional paradigm. Our response has been the development of an aviation specific version of the AAOT designed to articulated with the collaboratively developed Aerospace Leadership degree from OSU. Work is currently underway to finalize the development of a *New Second Degree* in education at the OSU. This new degree will be specific to Adult/Professional education and may be a companion degree added to the Aerospace Leadership degree. Education courses at Lane are being redefined so they are in compliance with OSU School of Education requirements.

The system: students can earn all FAA certificates via the Lane Aviation Academy programs and Lane Community College can prepare students for lower division general education requirements. OSU will accept a maximum of 124 transfer credits toward the Aerospace Leadership degree. The Aerospace Leadership degree may be completed in three academic terms (45 credit hours):
1.   Students have the option of adding the second degree in Adult/Professional education which requires 32 credit hours including both lower division and upper division courses. Lane students may transfer 9 lower division education credits.

2. In consideration of our objective to offer a highly robust program, our graduate pilots will be qualified as manager pilots and technical trainers. The justification is – individuals traditionally trained as flight instructors are not really necessarily well qualified to be well qualified trainers in the increasingly sophisticated airline environment. (this is an adult/professional training environment). This is a unique offering in the nation integrating the recognized expertise in Aviation Psychology at the UO, the respected quality of aviation technology offered by Lane and the versatility of the OSU College of Liberal Arts.

Recommendations for limiting Flight Technology Department operating overhead:

1) To meet our stated objectives, more robust preparation for the instructional staff is essential:
   a. Adopt a plan for developing the teaching skills essential for the advanced technologies represented in the air transportation industry. Redefine the role of Flight Instructor: the norm in the industry for community college aviation programs, staff flight instructors typically do not hold the rank of "faculty."

2) Move the Director's salary burden from the Flight Technology Department budget: this in
   a. consideration of the broader responsibilities of the director's responsibilities and in consideration of the fact the director level positions are typically not paid out of department operating funds.

   b. Fund .75 FTE for one office support staff person from an account other than the Flight Technology Department budget representing the larger responsibilities within the Lane Aviation Academy structure.

3) Expand capacity for doing engine overhauls in the Flight Technology maintenance facilities.

4) Plan to buy aviation fuel in bulk and store in (proposed) fuel farm facilities on the airport, or build a fuel farm on the airport and lease excess capacity to an operator on the airport.

Revenues generation (marketing):

Strategies:
1. A small grant is available via the Oregon Space Grant Consortium: these funds will be used to assemble equipment and technology for a "road show" package. The objective is to build a marketing package including notebook computer, digital projector and an assortment of published materials useful for marketing 8 major segments of the aviation and space industries.

   There are 30 high schools in Lane County: the objective is to recruit an average of one AMT and one Pilot candidate from each high school each year.

   Actively pursue speaking appearances before civic groups in the area. Recruit members from the

business community to serve on a design team for the Lane Aviation Academy. The objective is to access business connections, grant opportunities and additional resources to market our products and network across the region.

Seek to network with other Oregon Community Colleges that do not have aviation programs: encourage them to recruit transfer students into any major that has employment opportunities in the air transportation industry (most traditional majors): Lane adds the aviation specific elements. This is a win-win-win; students win by having a greater job market to seek employment in, the host community college wins by increasing their transfer student FTE numbers, Lane gets to expand its aviation related education services and the universities win.

2. Substantially expand dual credit options for high school students. Take the "road show" on the road, visit as many high schools as possible – recruit for students to consider aviation related careers and students that will engage in a dual credit option.

3. Consider initiating a Line Service Technician certification program. If leased fuel storage or a college installed fuel storage system is installed, the Flight Department will have a need to provide fuel service to its fleet of aircraft. In this case, use fuel / airline training programs and standards for certification.

 Topical categories developed in the summary analysis

a) Cost reductions and improved unit operational efficiency is absolutely essential.
b) Increased funding levels from sources external to the unit (student fees).
c) Marketing to strengthen professional /academic network and strengthen our student base to increase revenues.
d) Program revisions designed to enhance professionalism and increase the competitive edge for our graduates.

* *Please remember that any initiatives proposed for 2004-2005 must be linked to these conclusions.*

Part IV: Projected Performance 2004-2005

Chapter 4: Program Initiatives, 2004-2005

How do we propose improving future performance? Each initiative should be linked to a need identified in chapter 3: Program analysis, 2003 – 2004. Each initiative should also be linked to a goal identified in chapter 5: Unit/Program outcomes, 2004 – 2005. When proposing an initiative(s), use the following structure for each initiative proposal.

1. <u>**Initiative Title**</u>

Initiative titles, numbers indicate priority in terms of importance of completion

a) group initiatives:

1) <u>**Program Reorganization**</u>:

Reorganize the program to assure sustainability and to assure resources are available to meet air carrier industry level technology training; funds for equipment replacement and funds for up-grading aircraft equipment and instructional equipment, on the ground and in the aircraft.

2) <u>**Alternative Aviation Fuel Source**</u>:

Aviation fuel costs to the program have increased by 76 percent during the past three years – costs are threatening the program viability.

Two potential prospects:
a. buy bulk fuel directly and lease storage space in fuel tanks on the airport;
b. college install fuel storage capacity, lease excess storage space to other operators on the airport.

Plan (a) or (b) could save about $80,000 to $100,000/year.

3) <u>**Computer-based dispatch system:**</u>   <u>**Division Priority: 5**</u>

Identify a suitable software package and vendor to implement a computer driven scheduling and aircraft dispatch system.

4) <u>**A/C maintenance shop remodel**</u>:   <u>**Division Priority: 5?**</u>

The plan is to add office space and a semi-cleanroom on the shop floor, build a mezzanine over the top. There is a need to better utilize the volumetric space in the shop. The objective is to get the storage off the shop floor and have space to do engine overhauls. Overhauling engines in-house will save about $25,000 to $30,000 annually. Our chief mechanic is FAA certified and highly experienced.

5) <u>Up-grade avionics in Cessna 152's</u>:   **<u>Division Priority: 15</u>**
Install additional avionics in at least two Cessna 152's. This is essential to support the initiation of the *abinitio* element of the Professional Pilot Course.

<u>b) group initiatives</u>:

6) <u>Grant Searches:</u>
Make a concerted effort to identify and prioritize grant opportunities and foundations. Seek funds to pay major technology upgrades for our simulator(s). Longer-term plan is to acquire a more complex twin-engine airplane permitting high performance airplane transition training.

7) <u>On-line newsletter targeting alumni</u>: (four objectives)
i. target a newsletter to alumni;
ii. objective is fund raising;
iii. cataloging employment opportunities for our graduates;
iv. useful for information to assure our program is current.

8) <u>Develop a marketing (Road Show) kit</u>:   **<u>Division Priority: 15</u>**
The objective is to purchase a laptop computer, small digital projector, compact screen and printed materials useful for doing high school and community presentations promoting the Lane Aviation Academy.

<u>c) group initiatives</u>

9) <u>GPS (trainer) and pilot proficiency training</u>:
Develop an in-house instructional program to provide training to assure proficient and accurate instruction in the use of the GPS based technology used in the training fleet.

Longer-term objective is to marketing GPS user training to the larger aviation community.

<u>d) group initiatives</u>

10) <u>Digital Avionics Installation</u>:   **<u>Division Priority: 15</u>**
Purchase the balance of the digital equipment to complete a complete digital installation in an advanced trainer airplane.

11) <u>Complete development of the "Professional Pilot Course:"</u>   <u>Division Priority: 15</u>
Complete the total writing of the "Professional Pilot Course" and secure FAA approval.

12) <u>Revise the GS109 course</u>:   **<u>Division Priority: 15</u>**
Change the course title, number and description so it conforms to the objective of the course.

13) <u>Adult/Professional Education</u>: <u>Division Priority: 15</u>

Complete the development work required for the *New Education Degree,* OSU School of Education; develop and finalize the articulation between OSU and Lane.

14) <u>Aviation Psychology</u>: <u>Division Priority: 15</u>

Complete the revised Aviation Psychology course and finalize the articulation with the UO Psychology Department.

15) <u>Instructor Proficiency Training</u>: <u>Division Priority: 15</u>

As the Adult / Professional Education Program develops and the Aviation Psychology course is revised, use these resources to enhanced instructor training skills development.

2) <u>How is the initiative linked to your Program Outcomes Analysis for 2003-2004?</u>

- *What is the challenge you are trying to address?*
- *How will this initiative address the challenge?*

a) <u>group initiatives – challenges to be addressed</u>:

Long-term sustainability: all elements initiative elements in the "a group" are intended to assure fiscally sound unit operation. Generally, the approach to reduce unit operating costs and improve "profitability."

(Fiscal viability and sustainability are essential: cost controls and increased revenues are the twin-elixirs essential as a "cure for the ill" of fiscal short-falls.)

b) <u>group initiatives – challenges to be addressed</u>:

1. The objective is to secure funds over and above normal and direct operating funds to finance the purchase of equipment to up-grade the avionics systems in the training fleet: the objective is two-fold;
   a. replace old and unreliable equipment,
   b. to buy equipment that more nearly represents the state-of-the-art in avionics:

2. purchase additional equipment for the Flight Department maintenance shop. We have a need to more efficiently use our maintenance technicians and we have a need for additional equipment so we can do engine overhauls in our own facilities.

3. Fuel is a major operational expense and fuel is absolutely essential for our department to function. Fuel costs have increased by about 76 percent since the fall of 2001. Fuel cost is a major fiscals controls problem which threatens our ability to enjoy long-term sustainability. Obtaining fuel from a source other than our current contracted fuel provider can significantly reduce our fuel budget burden.

c) <u>group initiatives – Challenges to be addressed</u>:

We have a need to continue developing the 2+2+2 program within the Lane Aviation Academy. This effort requires a significantly increased effort to work with high schools, and secondarily to complete the program development and articulation with the two

major Oregon universities. The challenge is to link a program that logically provides a point of access to high school students with a clear career track through a four-year degree and an aviation career.

- Significant increases in program cost to the students and the need to generate revenues independent of general funds demands that we aggressively market our program outside the local market area and to a market segment not typically served.

Expanding our instructional offerings is essential so we can market our program to a non-traditional market segments.

d) group initiatives – challenges to be addressed:

Since the aviation industry is highly dynamic and there is a significant adoption of new technology, training methods and associated training equipment requires up-grading periodically. This action requires revisions in terms of the methods we employ to provide our training

- This program is moving into a competitive league that we have not been in historically. In order to compete and to assure that our students have the very highest quality training, or programs and our instructional staff must be significantly up-graded.

3) **Describe the initiative**

- *What will the product, innovation, or change of this initiative be? Please be as specific as possible.*

   1. Reorganization of the aviation related programs within the structure is the Lane Aviation Academy is intended to "spread" some of the office personnel salary/OPE burden and change how we obtain flight instruction services: the objective is to reduce the payroll burden and the OPE burden. Consider redefining the roll of the Lane Aviation Academy Director for the purpose of reducing the payroll burden currently carried by the Flight Technology Department.

   2. Successful completion of this initiative would result in establishing an alternative fuel source that meets the need of the department operations and at a "reasonable" cost.

   3. Successful completion of a computer based scheduling and dispatching system would provide scheduling on-line; dispatch data provides a data base that permits capturing of data for instructor payroll, aircraft maintenance scheduling/history and revenues generation / history.

   4. Remodel of the maintenance shop facility would significantly improve shop space utilization efficiency. Moving most general storage to a mezzanine would free shop floor space enough to permit building a semi-cleanroom space that can be used for engine overhaul.

5. Cessna 152 avionics up-grades support the developing (*abinitio*) "Professional Pilot" course permitting primary instruction in the Cessna 152's.

6. Successful grant awards would provide funds to purchase equipment and pay for staff to develop advanced training programs.

7. An on-line newsletter is intended to expand the usefulness of our web site. The objective is another marketing tool and another avenue for staying in touch with our alumni.

8. Marketing kit: A well organized marketing program in a "kit" form that is highly portable to be used to support aviation careers visits in high schools, other community colleges and community service clubs and business groups. The kit would consist of a laptop computer, small digital projector, projection screen and brochures describing the major careers areas in the industry.

9. GPS trainer. Acquire a "desktop" GPS trainer that permits detailed instruction and pilot skills training before operating the GPS system in the airplane.

10. Digital Avionics installation: There is a need to acquire that balance of a complete GPS based technology for installation in one of our trainers. The funds would pay for the purchase of the balance of the required equipment and the installation costs.

11. Completed development of a "Professional Pilot Course." The FAA has approved a "Special Curriculum" permitting our program to offer a comprehensive training preparing candidates for careers as airline pilots. The completed package would include all course outlines, TCO ,materials, evaluation and testing instruments.

12. Revised GS109 course: change the course number and title to represent the actual course objective.

13. Adult Professional Education Degree: The end product will be a *New Second Degree* offered by the OSU School of Education. This degree option will be a companion degree with the OSU Aerospace Leadership degree that is the degree option for most AAOT candidates in the aviation programs.

14. Aviation Psychology: an articulated course offered by UO Psychology Dept. Labs supported by the Lane Aviation Academy, Flight Technology Department. Aviation Psychology is recommended as a core course for AAOT students transferring to OSU seeking an Aerospace Leadership degree.

15. Instructor Proficiency Training: Elements to be derived from the *New Second Degree in Education,* OSU School of Education. The objective is to enhance instructional staff proficiency as "educators;" encourage seeking the double degree option at OSU.

- *What is the need or intended use? How was that need assessed? What is your evidence of the need?*
- *Given college resources, is it feasible? Is it an efficient use of college resources?*

1. Budget analysis and projections indicate a serious short-fall. Changing program structure will significantly improve the cost per instructional unit efficiency

2. Flightcraft is the fuel provider in Eugene, Aviation fuel prices in Eugene are the highest in the region. Fuel process are exceeding our budget for fuel. This change impacts the unit operating budget, not the college general fund budget.

3. Since the advent of Banner, the Flight Technology Dept. no longer has a means for capturing operational and related financial data via a computer based system. In order for us to be significantly more efficient we need on-line scheduling capability and data capture for airplane inspection and service. The result – is a capacity to meet both of these vital functions. Improved unit operational efficiency, no direct impact on the college resources.

4. We would have mezzanine storage and secure semi-cleanroom space for engine overhaul. Having engine overhaul capacity significantly impacts the unit operational budget; operationally, there will be no impact on the college resources; however, a request will be made for funds to do the remodeling.

5. We would have two Cessna 152's that we can use for flight in actual instrument conditions. No impact on college resources.

6. Successful funding via a grant award will permit funding up-grades on our simulator so we can provide GPS / glass cockpit display training. No impact on college resources.

7. A regular schedule for newsletters on our web site would exist. Success would be marked by increased activity on the web site and increased responses from our alumni. No impact on college resources.

8. A marketing kit would be available to provide aviation careers exploration presentations to high school groups, to other community colleges; promotional activities for local service clubs and local business groups. No cost impact on college resources; the increased marketing effort is expected to increase total student enrollments and increase college revenues.

9. We would have an operational GPS trainer useful for instructor skills training and student training. No impact on college resources.

10. We would have another airplane completely equipped with digital avionics which represent the state-of-the-art technology in the air carrier industry. No cost impact on college resources: increased technical capacity is expected to enhance our ability to recruit students, thus impacting total college FTE's.

11. The new "Professional Pilot" course will be completely developed and approved by the FAA.

12. The current GS109 Meteorology course would be renumbered and renamed so the name more closely reflects the course content. No college resource impact.

13. Adult /Professional Education: The *New Second Degree* in education would exist and students in our AAOT option would have that degree option available from OSU. No cost impact on college resources: expect to see an increase in enrollments in transfer courses, thus total enrollments and increased FTE's.

14. Aviation Psychology: The final iteration of the Aviation Psychology course offered by the UO Psychology Dept. will be defined and available for our AAOT candidates. No college resource impact.

15. Instructor proficiency training program would be developed in conjunction with the Aviation Psychology course at UO and the Adult / Professional education program at OSU.

- *What would be the campus location of this request/project?*

  All activities associated with each initiative is functionally located at the Flight Technology facilities on the Eugene Airport
  .

- *How many students (per year) will benefit?*

  - Assume the average headcount to be 120 per term, and a 25 percent rollover for each of four terms, the annualized student contact is estimated to be 40 students.

  - There are two primary factors these initiatives address: sustainability and enhanced instructional quality. Without sustainability the program cannot be offered and there is no basis for long-term planning. Quality instruction requires "teaching proficiency" and a program, including equipment representative of the industry standards.

  - An ability to offer very high quality instruction directly support our student's personal development and is fundamental to our ability to network with area high schools, the Oregon university system and industry partners. These factors directly support the mission and core values of the college.

- *How will students benefit? How specifically will it address Core Abilities or Learning Outcomes of your program?*

  - All initiative elements having specific instructional activities contribute directly to the mission and visions of the college and contribute significant gains in terms of developing core values.

4)   <u>Describe the resources needed</u>
   Attach the Initiative Spreadsheet to this chapter. Please be specific about the actual equipment/resource that you need.

❖ Initiative 1: Reorganization – with the advent of the formation of the Lane Aviation Academy, there is no longer a department head for Flight Technology and the Aviation Maintenance unit is no longer directly supervised by the Advanced Technology Division Chair. The Director of the Lane Aviation Academy is directly responsible for all aviation related programs, including FlightTechnology, Aviation Maintenance, the emerging Avionics Program and coordination and promotion of the AAOT – aviation emphasis. Currently the salary budget for the director is born entirely by the Flight Technology Department, which is currently a self-support program.

- move the director's salary burden to the college general fund;
- provide resources to remodel the Flight Technology Maintenance shop.

❖ Initiative 2: Alternative fuel source – in the future, fuel may be available from a second source on the Eugene Airport; an alternative is to develop a college owned and operated fuel farm. Should the college develop a fuel farm, the capitalization would be on the order of $100,000.

❖ Expecting the project to be funded from funds awarded via the Oregon Space Grant Consortium.

❖ Initiative 5 & 10:   Expect to fund with Carl Perkins grant funds.

❖ Initiative 11-15:   Expect to secure Carl Perkins Curriculum Development funds.

2)   <u>List the possible funding sources</u>
   Can this project be partially funded?
   If so, what portion could be funded at what minimum cost?

❖ Initiative 1: Request 100 percent of Director's salary burden be supported out of general funds. Expect the college will fund the remodel as a part of the college owned real assets.

❖ Initiative 2: Assume an alternative supplier of fuel is not forthcoming: Approach the college about funding 100 percent of the cost to install a fuel service capacity on the airport. Expect the cost to be retired out of revenues generated by the fuel cost savings and potential revenues derived from leasing excess fuel storage capacity.

❖ 100 percent of funds derived from the Oregon Space Grant. Development (talent) resources derived from the Flight Technology Department staff.

❖ Initiative 5 & 10: All avionics equipment and installation costs to be derived from Carl Perkins funds.

❖ Initiative 11-15: Expect approximately 50 percent of the curriculum development funds from Carl Perkins, the balance from Flight Department resources.

Initiative Funding Summary

Initiative (project)	Funding Source	Requested Funds
1. Computer dispatch system	Technology funds	Est. $2000.00
2. Cessna 152 avionics	Carl Perkins	Est. $3,500.00
3. Digital Avionics system installed	Carl Perkins	Est. $16,500.00
4. Engine overhaul equipment	Carl Perkins	Est. $2,600.00

Note: items 2, 3 & 4 (each) need to be funded as a unit. Item 3, a portion of this system was purchased from Carl Perkins funds 2003-04.

5. Aviation shop remodel	General funds	Est. $25,000.00
6. "Road show kit"	Space Grant	$5,000.00
7. Professional Course Development (curriculum development, 100 hours)	Carl Perkins	$2,500.00

If the funding source is Carl Perkins:
1. How does the request meet one or two of the Carl Perkins act goals?

    a) For the period from 2002 through 2012, the global need for pilots is projected to be 200,000; this accounts for growth in the industry and to replace pilot due to attrition. The pilot training program fulfills a critical manpower need for highly skilled pilots in the industry.

    b) This program is an excellent example of professional development preparing people for highly technical and highly competent workers in the industry representing the largest fraction of the total GDP.

3)   **Provide ORG & PROG codes**

    ORG   613001

    Prog   112000

4) How does this project articulate with the college's vision, mission & goals and contribute toward meeting the President's/Board's approved goals?

Program Level articulation:

Vision
All individuals completing training in the Flight Technology program will have enjoyed a major transformation by having gained a marked increase in the knowledge, skills and open opportunities for exciting, fulfilling careers offering a potential for earnings that are well above average.

Mission

Pilot training is inextricably a vital part of the vocational technical training programs at a high level and participants also have an option for articulation with an Oregon university to prepare for hundreds of professional positions in the air transportation industry. Jobs in the air transportation industry are exciting, fun and professionally challenging.

Core Values

Aviation is, as an industry is highly diverse in terms of the integration of many disciplines and technologies. Students are always challenged to find within themselves resources they had never realized. Due to the very vigorous nature of the industry and the rapid adoption of technology, the industry and the associated teaching/learning activities is innately innovative.

Collaboration is easy – students at all levels are intrigued – professionals at all levels in each specialty are eager to share: schools, colleges and industry partners easily forge working partnerships. As an industry, it is global – being global, it is highly diverse. Aviation, wherever is engaged always has a common thread of comradery.

Chapter 5: Expected Unit/Program Outcomes for 2004-2005
What program outcomes do you expect to achieve in 2004-2005?

1) <u>**What program level outcomes do you expect to achieve?**</u>
  What goals do you wish to set for 2004-2005? How will your program grow, change or adapt? How will you address the need to meet program accreditation standards or national standards if applicable?

<u>**Initiatives – goals and associated time lines**</u>

<u>**Initiative number & Title**</u>

1. <u>Program reorganization</u>:
   Reorganization plan (general) – completed by March, 30 2005
   Reorganization plan implementation no later that June 10, 2005
       a) instructional staff redefined
       b) Lane Aviation Academy Director salary moved from the FT Dept. budget.

2. <u>Alternative fuel source plan</u>: Action plan completed by April 1, 2005. Expect to be prepared
    to implement the new fuel source plan no later than 30 June 2005.
    (July 1, would start a new contract year with a commercial vendor.)

3. <u>Computer-based dispatch system</u>:
       <u>a)</u> Implementation plan completed and required resources
           identified by December 17, 2004.
       <u>b)</u> System *Beta* testing completed and system fully implemented no later than 30 March,
           2005.

4. <u>A/C Maintenance Shop remodel</u>: Plan to have new equipment purchased and installed by
   June 30, 2005. Plan to have the physical remodel completed by 30 June, 2006.

5 & 10. <u>Avionics up-grades</u>: Plan to have all avionics up-grades no later than June 30, 2005.
       The Cessna 152 avionics upgrades to be completed by January 7, 2005.

6. <u>Grant Searches</u>:   Complete grant search process, prioritized and identified resources for
     grant development by 30 March, 2005.

8. <u>On-line Newsletter</u>: Plan to have the new web site developed and functional by 10 January,
   2005: bi-monthly schedule set to write newsletters.

9. <u>GPS Trainer</u>:   Materials/equipment secured no later than June 10, 2005.

11. <u>New "Professional Pilot Courses</u>: Expect to have the new TCO materials fully developed,
    FAA approved and ready for reproduction and in-service training no later than August 30,
    2005.

12. <u>Revised GS109</u>: request for designation change submitted no later than March 30, 2005.

13 & 14.<u>OSU and UO articulated programs</u>: Both programs / course completed and ready for enrollment no later than 10, March 2005. The plan is to have the *New Second Degree* in education provisionally approved by the spring term 2005 and totally approved and available by the beginning of fall term 2005.

2) <u>How will your program enhance your students' abilities to meet Core Abilities outcomes?</u>
What changes, if any, do you expect to implement in 2004-2005?

Core abilities for our programs are concentrated primarily in technical knowledge and operational skills. With the constant integration of new technology the technical knowledge "core" changes and operational skills sets change in concert with advances in technology, industry demands and the FAA requirements. Goals sets for the department are designed to sustain a continuous progression toward excellence: this is supported by revisions in content and comprehensiveness of course content, increasing performance standards and continued instructor teaching skills development.

3) <u>What course level outcomes do you expect to achieve?</u>
What goals do you wish to set for 2004-2005? How will your courses grow, change or adapt? How will your instructional methods change or adapt? What goals do you have for your instructional environment (classrooms and/or technologies and equipment)?

All courses in the unit are reviewed annually for content, comprehensiveness and appropriateness considering our need to meet industry and FAA standards. New training methods must be developed and adopted in order to meet the needs reflected in the newer technology common in the industry and as reflected in up-dated equipment in the training fleet. Education skills development for our staff instructors will be supported by our direct partnering with UO Psychology Department and OSU School of Education.

During the 2004 – 2005 academic year, most of our enhancement effort will be in the form of developing improved teaching methods for our instructor staff. Secondary effort is in the expanded use of web-based instruction. We will be slowly developing our skills in the use and application of web based technology.

The plan is to have all our scheduling for airplanes and instructors on-line by the end of this fiscal year (June 30, 2005). That capacity includes dispatching, flight hours records and aircraft maintenance history.

4) <u>What plans do you have for enhancing your use of current technologies?</u>

Technology integration involves three major areas:
   a) substantial increased use of digital and GPS based technology has already begun;
   b) there is a need to recover from the substantial loss of technology (computer) support after Banner was adopted college wide; purchasing and integrating a capacity for scheduling and internal records, including payroll, aircraft maintenance as well as operating efficiency data;
   c) enhanced on-line (web-based) supporting instruction and marketing.

5) <u>**What plans do you have for working more effectively with your Advisory Committee?**</u>
Two major areas:

c) The advisory committee membership has changed significantly; we are fortunate to have a membership composed of people who are professional and have a genuine interest in supporting the program – this fact improves our ability to collaborate in a highly meaningful fashion;

d) encourage the advisory committee to develop a longer-range working plan of support. This is to support the 2+2+2 effort, with specific effort directed toward high school students. The objective is to enhance internship opportunities in the aviation fields.

6) <u>**How will you set faculty and staff goals?**</u>
 How will you ensure the participation of faculty and staff in all phases of Unit Planning?

The unit planning process and draft writing is being done in short subsections. Faculty and staff provide review comments and contribute progressive input as the unit plan document is developed.

7) <u>**Enrollment Data**</u>
Please provide your projected goals for 2004-2005:
Program Level: Student FTE
Course Level: Student FTE
Student FTE/Faculty FTE ratios
Capacity Analysis (no reliable data)

8) <u>**Student Success Data**</u>
Please provide your projected goals for 2004-2005:
- Student Retention ratios (no reliable data)
- Student Completion ratios (no reliable data)

9) <u>**Facilities and Equipment**</u>
What facilities or equipment goals do you wish to set for 2004-2005?
1. Expect to have the remodel work in the shop completed by December 31, 2006.
2. Expect to have zyglow and cold tank system installed no later that June 30, 2005.
3. Expect to have computer dispatch system operational no later than June 30, 2005.

10) <u>**Budget**</u>
Please provide projected goals for 2004-2005:
(Data is derived from Advanced Technology Division Benchmark Analysis)

- General Fund:
  - General Fund Allocation   **$290,307**
  - Actual Costs of Unit Operation   **$1,120,601**
  - Revenues (Course Fees, etc.)   **$830,294**
  - Cost per Student FTE   **$3,234**