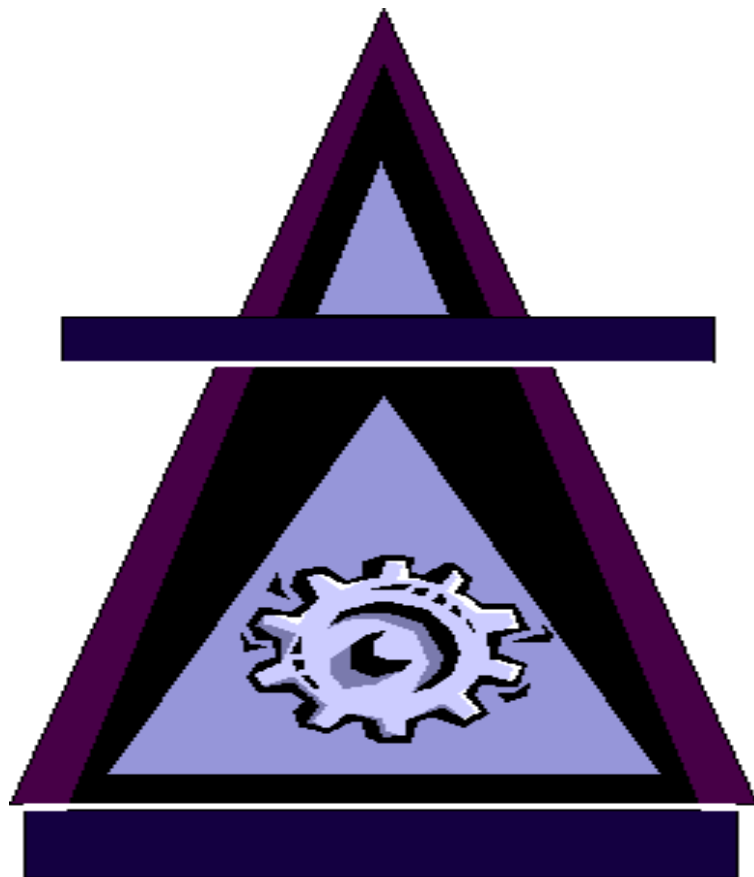


# Advanced Technology Division

*Divisional Plan*

*2004 - 2005*



# Advanced Technology Division Initiatives

## Part IV: Projected Performance

### Program Initiatives

**Initiative 1:** Implement the Regional Technical Education Center courses.  
Advanced Technology Division, FY 2005, Enhancement, 01 = **DV05E01**

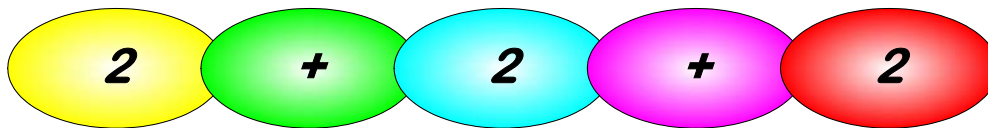
**Division Priority: 7**

### 2. Linkage to Program Analysis Findings

The advanced technology division should be a leader in the implementation of the Regional Technical Education Center.

### 3. Describe the Initiative

## ***Regional Technical Education Center***



**Lane Community College  
Lane Education Service District  
Lane County School Districts**

The Regional Technical Education Center (R-TEC) at Lane Community College is a collaborative effort to provide high school students and adults rigorous and relevant professional technical education according to industry standards and community needs in Lane County, Oregon. It enables students to pursue industry-aligned coursework and prepares them for high skill, competitive wage careers that meet regional economic development needs for a quality workforce.

This initiative will enable R-TEC to expand its course offerings to include manufacturing technology, computer aided drafting (CAD) design, aviation technologies, electronic technician, metals, and mechanics curricula. Faculty will model the curriculum format based on lessons learned from the fundamentals of technology: automotive pilot course that was launched in Fall 2004. They will consult with their industry specific advisory committees to assure that the content meets industry expectations and needs.

This initiative will help enhance an infrastructure for further teaching of professional technical courses and facilitate the articulation of technical education between high schools, community college and higher education. The proposed format will become a replicable model to expand opportunities for students in a shared, collaborative way. The demonstrated outcomes will be used to further understanding of public policy makers to better inform funding and content decisions.

### *Purpose*

In Spring 2004, Lane Community College on behalf of the Regional Technical Education Center (R-TEC) submitted for comment an NSF preliminary planning proposal under the name the Regional Technical Skills Center. Since significant planning efforts were already occurring, the reviewers identified the potential capacity for small demonstration projects.

R-TEC is working across institutional barriers. High school juniors and seniors from different high schools are earning college credit towards certificates of technology and associate degrees. They will benefit from experiential cooperative education learning sites in business and industry. The students will have the potential to gain additional higher education at Lane Community College, Oregon State University (OSU), and the University of Oregon (UO). The UO located in Lane County provides core science and math degrees. OSU, located in Benton County, the contiguous northern county from Lane County, specializes more in the applied sciences. Ultimately R-

## **Advanced Technology Division Initiatives**

TEC envisions enrolling post-secondary students who will upgrade their technical skills, earn and retain technical certification, and/or pursue associate and bachelor degrees.

Professional technical programs are expensive to operate. By working together school districts and the community college create new opportunities for students that they could not otherwise afford. Business and industry provide leadership, curriculum input, and worksite learning placements. Employers report the inability to find qualified, technologically capable manufacturing technicians. Manufacturing employers are willing to be involved in curriculum development and provide cooperative education worksite experiential learning. Lane Community College's Aviation Technology Program recently completed course alignment with OSU leading to course transfer agreements. The Aviation Technology Program is functionally articulated and leading towards a new degree program. It will provide the prototype that will be followed to develop articulation arrangements for manufacturing technology.

The local school districts are prepared to share the cost of student tuition as they have done with the fundamentals of technology: automotive sequence of courses. As with the current pilot fundamentals of technology courses, students in the newly developed fundamentals of technology courses would earn dual college and high school credit as appropriate. They would receive individual assessment and career counseling to identify appropriate opportunities continuing at Lane, completing a certificate program, and potentially transferring to Oregon State University or the University of Oregon.

### *The Regional Technical Education Center Framework*

Lane Community College, Lane Education Service District, the Lane County K-12 School Districts, Higher Education, Business and Industry and other strategic partners have been designing R-TEC to serve Lane County students, regardless of which institution is their "home." It promotes sharing facilities, talent, business, industry and labor connections, and excess capacity where it exists. Thus, R-TEC avoids duplicating existing successful efforts. It leverages resources and is a catalyst for increased focus on professional technical training. It provides a bridge for education and training across geographical boundaries, taking into consideration the urban and rural nature of Lane County

Lane Community College, located in Eugene, Oregon, is a comprehensive two-year public college whose mission is to provide accessible, high quality, affordable lifelong education. Lane's service district (which mirrors Lane County) covers nearly 5,000 square miles in western Oregon and reaches from the Pacific Ocean to the Cascade Mountains (approximately the size of Connecticut). Between 1990 and 2000 the Lane County population grew over 15% to a population of 322,959. Today the population is nearing 360,000. With a combined population of approximately 200,000 residents, the Eugene/Springfield metropolitan area is Oregon's second largest population center.

Lane County has sixteen K-12 school districts varying in size from Blachly, the smallest, (133 students) to Eugene 4J, the largest (17,600 students). About two-thirds of the population lives in central Eugene/Springfield metropolitan area. This area is served by three larger school districts (Eugene 4J: 17,600 students; Springfield: 11,275 students; Bethel: 5,500 students). The remainder of the county is rural in nature, served by the remaining thirteen school districts. Lane Community College serves all of Lane County and has a student population of 40,000. Lane Community College has a main campus in Eugene, two outreach centers in Florence (western county) and Cottage Grove (southern county). There are seven community learning centers co-housed in various high schools.

Lane Education Service District (Lane ESD) encompasses all Lane County K-12 school districts and Lane Community College to leverage shared resources for mutual initiatives benefiting all students and special target groups across district boundaries. Lane ESD has its own tax base and receives a pro-rata service fee contribution from all the school districts.

### **4. Requested Resources**

1) Full-time Faculty Coordinator (1.00 FTE) = \$80,000

This position will coordinate the design and implementation of the RTEC fundamentals of technology courses.

## **Advanced Technology Division Initiatives**

- 2) Curriculum Development: Fundamentals of Technology-Manufacturing (200 hrs) = \$7,400  
Curriculum development to design and produce a fundamentals of technology: manufacturing sequence of courses for the RTEC.
- 3) Curriculum Development: Fundamentals of Technology – CAD Design (200 hrs) = \$7,400  
Curriculum development to design and produce a fundamentals of technology: CAD design sequence of courses for the RTEC.
- 4) Curriculum Development: Fundamentals of Technology-Aviation (200 hrs) = \$7,400  
Curriculum development to design and produce a fundamentals of technology: aviation sequence of courses for the RTEC.
- 5) Student Tool Sets for the Fundamentals of Technology courses = \$20,000  
These tool sets are for the RTEC courses taught on campus.
- 6) Student Textbooks for the Fundamentals of Technology courses = \$10,000  
The classroom text books are for the RTEC courses. High school students in these courses do not have to purchase the textbooks.
- 7) Marketing Materials for the Regional Technical Education Center = \$10,000  
The Regional Technical Education Center needs to develop marketing materials to recruit high school students.
- 8) Provide Student Uniforms for the Fundamentals of Technology Courses = \$3,000  
High school students in the RTEC courses will be required to wear a shop/laboratory uniform. This is to reinforce the employability skills.
- 9) Curriculum Development: Fundamentals of Technology – Electronics (200 hrs) = \$7,400  
Curriculum development to design and produce a fundamentals of technology: electronics sequence of courses for the RTEC.
- 10) Curriculum Development: Fundamentals of Technology – Metals (200 hrs) = \$7,400  
Curriculum development to design and produce a fundamentals of technology: metals (fabrication and welding) sequence of courses for the RTEC.
- 11) Curriculum Development: Fundamentals of Technology – Mechanics (200 hrs) = \$7,400  
Curriculum development to design and produce a fundamentals of technology: mechanics sequence of courses for the RTEC.

### **5. Funding Sources**

General Funds  
Carl Perkins  
Curriculum Development  
Other (Grants)

#### **5.1 Alignment to Carl Perkins Act goals?**

##### *Student Skills Goal*

This initiative will improve technical skills of students by providing opportunity for those students to learn how to operate safe and reliable equipment of a type that they will be expected to operate by their future employers

##### *Work-based Learning Goal*

Students taking these courses will become aware of the many career pathways that include electronic technology technicians. Students may continue their career education at the College and then enter the workforce in entry level technical positions.

##### *Effect on Profession Technical Education student success?*

ATD-Division Initiatives.DOC

## **Advanced Technology Division Initiatives**

Students will gain industry specified skills which will lead to higher paying employment. High school students will become motivated to pursue and complete a technical degree.

### *Brief Carl Perkins funding history*

The advanced technology division has utilized CP funding over the last 20 years to enhance its capability to offer effective, efficient training through purchase of equipment. In that time CP money has allowed the program to align its capabilities with the needs of the industry for which it trains students. The result is better qualified students, a better and broader relationship with industry and more efficient use of educational time.

### **5.2 Alignment to Student Technology Fees.**

#### **5.3 Curriculum Development**

##### *How will this initiative improve learning?*

Exposing high school students to the career opportunities and educational requirements will motivate the students to enter and complete the program.

##### *What specific curricular materials will be produced?*

The fundamentals of technology curricula must be developed. These curricula will focus on basic technical, employability and applied academic skills. The curricula will include orientation to career pathways.

##### *Why is this curriculum development and not just curriculum maintenance?*

This is a new sequence of courses for a new type of student.

### **6. Organization and Program Codes**

Fund= 926001, Org = 614100, Program = 112000

### **7. Alignment to the College's goals**

This initiative aligns with the following college goals:

- Transforming Students' Lives
- Transforming the Learning Environment

# Advanced Technology Division Initiatives

## Program Initiatives

**Initiative 2:** Develop a prototype Learning Management Information System (LMIS)  
Advanced Technology Division, FY 2005, Enhancement, 02 = **DV05E02**

**Division Priority: 29**

### 2. Linkage to Program Analysis Findings

**Finding 2:** The advanced technology division should develop interactive, skills-based curricula and manage the curricula with a prototype learning management information system.

### 3. Describe the Initiative

The advanced technology division is seeking funds to develop a prototype Learning Management Information System (LMIS) that may lead to the design and future implementation of a college-wide LMIS. The LMIS prototype will include system design constructs to facilitate implementing and managing learning college principles, outcomes and skills-based curricula, interactive learning, continuous real-time assessment, and life-long learning documentation. The scope of the LMIS prototype will include modules for aligning student goals to careers and programs, testing, curriculum development, student assessment, student portfolio development, skills to course mapping, and interfacing to the college-wide student information system.

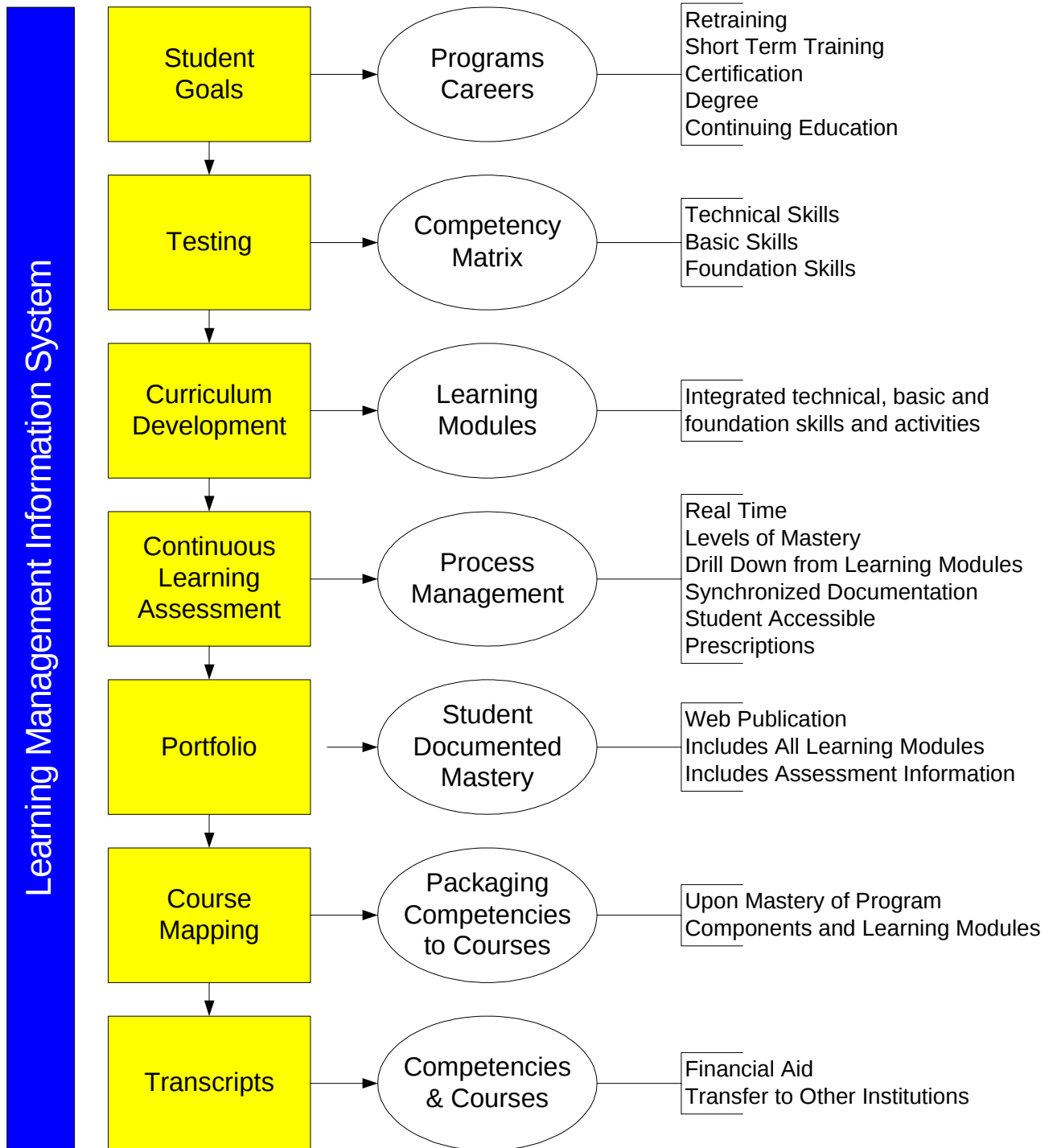
The LMIS prototype will involve the aviation maintenance technology, electronics, and mathematics faculty and curricula. The expected outcomes of the LMIS prototype will be to 1) design, implement, and test a skills-based curricula database; 2) provide student-initiated, web-enabled instructional navigation; 3) provide real-time instructional assessment processing; 4) increase student/faculty instructional interaction time; 5) increase interdisciplinary instruction (learning communities); and, 6) provide centralized management of the learning information systems during the project.

The primary grant expenses will be to provide faculty release time, contract web-enabled database design and programming, and purchase the prototype information system equipment and software.

Most colleges use three institutional production information systems: finance, personnel, and student information. College's will spend millions of dollars to purchase, develop and maintain these three systems. The finance and personnel information systems are typical business resource management systems (they exist in any large organization). The student information system focuses on admissions, counseling, financial aid, registration and student records. What is amazing in higher education is the absence of a college-wide learning information management system, especially when considering the primary function of the college is to provide and manage learning. Existing student information systems are not learning management information systems. Student information systems manage student transactions other than what happens in a learning environment (classroom, lab, home, etc.). Virtual web-classrooms (WebCT, etc.) may be categorized as college-wide learning management systems but they only supply limited functionality.

## Advanced Technology Division Initiatives

The following flow-chart illustrates the primary learning management processes for the proposed Learning Management Information System (LMIS) prototype.



## Advanced Technology Division Initiatives

The prototype LMIS will include aligning student goals to careers and programs, testing, curriculum development, continuous learning assessment, student portfolio development, and skills mastery to course outcomes management. The aviation maintenance technology will be converted from its current course-based curriculum to a skill standards-based curriculum. This conversion will also involve the electronics and mathematics programs.

### Aligning the LMIS Design Features to the Learning College Principles

| LEARNING COLLEGE PRINCIPLES                                                          | LEARNING MANAGEMENT INFORMATION SYSTEM                                                                                                                                                                                                                              |
|--------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| CREATES SUBSTANTIVE CHANGES IN THE LEARNERS                                          | OUTCOMES-BASED, SKILL STANDARDS-BASED<br>LEARNER ACKNOWLEDGES VALUE-ADDED<br>AN INDIVIDUALIZED SKILLS ASSESSMENT DATABASE IS CREATED AND MAINTAINED FOR EVERY LEARNER.                                                                                              |
| ENGAGES THE LEARNER AS A FULL PARTNER                                                | STUDENT GOALS DRIVE THE LEARNING EXPERIENCE (SHORT-TERM TRAINING, CERTIFICATION, AAS).<br>LEARNING IS STUDENT INITIATED. LEARNING IS ASSESSED AND MANAGED BY THE INSTRUCTOR USING THE LMIS. THE CURRICULUM IS DYNAMIC, ADAPTING TO THE UNIQUE NEEDS OF THE LEARNER. |
| CREATES MANY OPTIONS FOR LEARNING                                                    | MULTIPLE LEARNING MODALITIES: COLLABORATIVE LEARNING, KNOWLEDGE NAVIGATION, SMALL GROUP INSTRUCTION.                                                                                                                                                                |
| ASSISTS LEARNERS TO PARTICIPATE IN LEARNING ACTIVITIES                               | LEARNING IS PERFORMANCE BASED. INSTRUCTORS PROVIDE LEARNING FOCUS AND MOTIVATION.                                                                                                                                                                                   |
| DEFINES THE ROLE OF THE LEARNING FACILITATOR                                         | INTERACTIVE INSTRUCTION AND LEARNING MANAGEMENT ARE THE PRIMARY ROLES OF THE INSTRUCTOR. LEARNING ASSESSMENT IS CONTINUOUS, REAL TIME, DENOTING LEVELS OF MASTERY, PRESCRIPTIVE AND STUDENT ACCESSIBLE.                                                             |
| SUCCESS OCCURS WHEN IMPROVED AND EXPANDED LEARNING CAN BE DOCUMENTED FOR THE LEARNER | STUDENTS CREATE AND MAINTAIN ELECTRONIC PORTFOLIOS BASED ON THE MASTERY OF SKILL STANDARDS. STUDENTS ENTER THE WORKFORCE WITH DOCUMENTED AND ACCREDITED HIGH-LEVEL SKILLS.                                                                                          |

The documentation of continuous learning assessment is the most difficult aspect of moving from the traditional instructor-centered curriculum to a learner-centered, skill standards-based curriculum. Students should be continuously assessed as they complete learning activities. This interactive feedback provides the student with direction on what to learn when it is most needed. For example: a learning module on using electronic measuring instruments may include the manipulation of trigonometric functions. At the point the student is assessed as lacking mastery of a skill, the student is directed, by the LMIS, to supplemental learning activities (instead of moving forward without mastery of this skill). The best assessment includes the ability of the student or instructor to recognize a deficiency and immediately engage in a focused supplemental learning activity. Without the LMIS, the instructor will have to document skills mastery by periodic written documentation, grade books, and time-delayed tests. Students will have to meet with the instructor to receive prescriptive feedback.

A primary feature of the project is to facilitate continuous learning assessment by providing instructors pocket computers that are connected via wireless web to the LMIS. Instructors will have graphical and voice activated data entry screens (touch screen, handwriting recognition, verbal notes, digital pictures and motion video) to document student mastery. Students may then download their assessment documentation to their web-based portfolio. For example: an aviation maintenance instructor may attach a 20 second video of a student installing the return springs in a brake assembly to the student's skills assessment database. The student may then copy this video and include it in their learning portfolio.

## Advanced Technology Division Initiatives

Many projects have been funded to redesign lecture-based technical programs to skills-based curriculum. These projects have involved program faculty in identifying skills, competencies, performance indicators, learning activities and assessment criteria. All of this information is usually assembled in either a paper or in a stand-alone information system. Assessment documentation is still dependent upon the individual instructor and is most often paper-based. This limits the effectiveness of interactive (student/teacher) feedback. It also puts a tremendous burden on the instructor to be expeditious, consistent and thorough when evaluating student mastery.

### Proposed Project Plan

| Activity                           | Plan/Design                                                                                                                                                               | Develop/Build                                                                                                                                                           | Evaluation                                                                                                                                        | Roles                                                                    |
|------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------|
| Project Education and Training     | Learning college principles<br>Interactive learning principles                                                                                                            |                                                                                                                                                                         | Project members will understand the design principles                                                                                             | Project manager will provide continuous education and training           |
| Career Exploration                 | Align student goals to the national career clusters and the college's instructional programs. Provide student-initiated and web-enabled navigation for career exploration | Create a careers database. Hyper link to existing web-based resources. Manage web portal and student navigation.                                                        | This module will include national and state career clusters, and, align student goals to career clusters and college programs.                    | All project members. The web/database contractor will develop and build. |
| Testing                            | Provide student-initiated and web-enabled navigation for self-testing. Provide teacher-initiated, real-time assessment.                                                   | Develop a skill-standards and competencies database that integrates technical, basic and foundation skills.                                                             | A web-accessible normalized skills, competencies and performance criteria database will be developed and maintained.                              | All project members. The web/database contractor will develop and build. |
| Curriculum Development             | Design a curriculum development module to facilitate conversion to outcomes and skill standards-based curricula.                                                          | Develop outcomes-based database using learning-modules (integrated skill sets), and performance indicators. Develop hyperlinks to supplemental learning materials.      | The aviation maintenance technology curriculum will be converted, including the imbedded electronics and mathematics skills.                      | All project members. The web/database contractor will develop and build. |
| Continuous Learning Assessment     | Design attributes to include real time assessment, levels of mastery, drill down to competencies, synchronized documentation, student access and prescriptive.            | Develop a wireless pocket computer assessment entry system to include keyboard, voice annotation and video inputs. Build hyperlinks to prescriptive learning materials. | Multiple faculty can assess any student using a portable assessment computer. Assessments are centrally documented and accessible by the student. | All project members. The web/database contractor will develop and build. |
| Portfolio Development              | Design the features of a student managed, web-enabled learning portfolio.                                                                                                 | Develop web-based student learning portfolios. Ensure appropriate controls and security.                                                                                | Students can manage their own web-based learning portfolios.                                                                                      | All project members. The will develop and build.                         |
| LMIS Administration and Management | Design access, security, redundancy, training, and documentation for                                                                                                      | Develop administrative rules, procedures, and system documentation.                                                                                                     | A college database programmer can sustain the LMIS prototype.                                                                                     | The project manager, the web/database contractor, and the college's      |

The assessment of this project will be based on measuring actual operational effectiveness compared to designed (or predicted) effectiveness. Effectiveness measures will include student mastery rates, student portfolio

## **Advanced Technology Division Initiatives**

development, student time using the system, student satisfaction survey, faculty assessments of student learning, student/faculty instruction ratios, and student program costs ratios.

The following project objectives will be assessed by the project members, students, instructional managers, and community advisory committees.

- Design and build a prototype Learning Management Information System that will demonstrate the requirements, feasibilities and operational design features for the future development of a college-wide learning management information system.
- Identify and validate the programs' skill standards using existing industry skill standards, the business-DACUM approach, and the education-curriculum approach.
- Determine performance indicators to identify the levels of skill mastery based on assessment criteria.
- Correlate technical and SCANS competencies to skill standards.
- Develop learning modules to integrated technical and academic skills.
- Correlate skill standards and competencies to equivalent credit courses.
- Provide skills assessment transaction processing
- Maintain a synchronous skills matrix database
- Provide secure wireless web-enabled pocket computer data entry (real time at any location)
- Provide multi-modality skills assessment data entry screens (touch screen, handwriting recognition, verbal notes, digital pictures and video)
- Provide student-initiated skills acquisition navigation
- Provide student managed web-based learning portfolios.
- Provide hyper-links to career/program exploration and self-testing.
- Provide hyper-links for learning modules, skill standards, performance indicators, competencies and assessment criteria.
- Provide hyper-links from competencies to supplemental drills, tutorials and simulations and other knowledge domains.
- Provide hyper-links to existing on-line student support systems.
- Provide scheduling (teacher appointments, small-group instruction).
- Provide the centralized management of information systems
- Support and maintain the web-enabled central database.
- Manage a single MIS development and operations staff.
- Administer database security and disaster recovery systems

The advanced technology division will work with the Regional Technical Education Center, the Schools of Education at Oregon State University and the University of Oregon.

### **4. Requested Resources**

1) Design and Implement interactive, skills-based curriculum (500 hrs) = \$18,500

The programs need to align their courses to the industry skill-standards. Additionally, the curricula should be developed using computer interactive methods to facilitate student directed learning, continuous assessment and distance education.

2) Purchase Interactive, Skills-based, Curricula = \$10,000

There are many developed computer interactive curricula on the market. These funds would help jump-start the division's effort to transform the existing curricula.

3) Full-time Faculty Coordinator (1.00 FTE) = \$80,000

This position would coordinate the overall design and implementation for the division's interactive, skills-based curricula.

### **5. Funding Sources**

General Fund

Carl Perkins

Curriculum Development

*ATD-Division Initiatives.DOC*

Page 9

*Part IV– Projected Performance*

1/14/2005

# Advanced Technology Division Initiatives

Other (Grants)

## 5.1 Alignment to Carl Perkins Act goals?

### *Student Skills Goal*

This initiative will improve technical skills of students by providing opportunity for students to be self directed and partners in their educational progress. Learning will be managed, assessed and documented. Students will have access to a learning portal that will greatly enhance their learning opportunities.

### *Work-based Learning Goal*

The interactive, skills-based curricula will be designed using national industry standards. These are the skills that the employers have identified as necessary for entry and advanced employment.

### *Effect on Profession Technical Education student success?*

Students will gain industry specified skills which will lead to higher paying employment. High school students will become motivated to pursue and complete a technical degree.

### *Brief Carl Perkins funding history*

The advanced technology division has utilized CP funding over the last 20 years to enhance its capability to offer effective, efficient training through purchase of equipment. In that time CP money has allowed the program to align its capabilities with the needs of the industry for which it trains students. The result is better qualified students, a better and broader relationship with industry and more efficient use of educational time.

## 5.2 Alignment to Student Technology Fees.

## 5.3 Curriculum Development

### *How will this initiative improve learning?*

Exposing high school students to the career opportunities and educational requirements will motivate the students to enter and complete the program.

### *What specific curricular materials will be produced?*

The fundamentals of technology curricula must be developed. These curricula will focus on basic technical, employability and applied academic skills. The curricula will include orientation to career pathways.

### *Why is this curriculum development and not just curriculum maintenance?*

This is a new sequence of courses for a new type of student.

## 6. Organization and Program Codes

611001 112000

## 7. Alignment to the College's goals

This initiative aligns with the following college goals:

- Transforming Students' Lives
- Transforming the Learning Environment
- Transforming the College Organization
  - o Implementing a Learning Management Information System

# Advanced Technology Division Initiatives

## Initiatives Spreadsheet

| Unit Priority | Initiative ID | Expected completion date | Initiative Title                                  | Resource Description                 | \$\$   | Recurring / Nonrecurring | (mark with an "X") |           |       |       | Funding Sources (mark with an "X") |              |              |               |          |       |
|---------------|---------------|--------------------------|---------------------------------------------------|--------------------------------------|--------|--------------------------|--------------------|-----------|-------|-------|------------------------------------|--------------|--------------|---------------|----------|-------|
|               |               |                          |                                                   |                                      |        |                          | Payroll (w/OPE)    | Equipment | Space | Other | Existing                           | New Gen Fund | Carl Perkins | Stud Tech Fee | Curr Dev | Other |
| 1             | DV05E01       | 12/1/2005                | Implement the Regional Technical Education Center | Full-time Faculty Coordinator (1.00) | 80,000 | R                        | X                  |           |       |       |                                    | X            |              |               |          | X     |
| 2             | DV05E01       | 12/1/2005                | Implement the Regional Technical Education Center | Manufacturing Curriculum (200 Hrs)   | 7,400  | N                        | X                  |           |       |       |                                    |              | X            |               | X        | X     |
| 3             | DV05E01       | 12/1/2005                | Implement the Regional Technical Education Center | CAD Design Curriculum (200 Hrs)      | 7,400  | N                        | X                  |           |       |       |                                    |              | X            |               | X        | X     |
| 4             | DV05E01       | 12/1/2005                | Implement the Regional Technical Education Center | Aviation Curriculum (200 Hrs)        | 7,400  | N                        | X                  |           |       |       |                                    |              | X            |               | X        | X     |
| 5             | DV05E01       | 12/1/2005                | Implement the Regional Technical Education Center | Tool Sets (50)                       | 20,000 | N                        |                    | X         |       |       |                                    |              | X            |               |          | X     |
| 6             | DV05E01       | 12/1/2005                | Implement the Regional Technical Education Center | Classroom Text Books (200)           | 10,000 | N                        |                    | X         |       |       |                                    |              | X            |               |          | X     |
| 7             | DV05E01       | 12/1/2005                | Implement the Regional Technical Education Center | Marketing Materials                  | 10,000 | N                        |                    | X         |       |       |                                    |              | X            |               |          | X     |
| 8             | DV05E01       | 12/1/2005                | Implement the Regional Technical Education Center | Student Uniforms (100)               | 3,000  | N                        |                    | X         |       |       |                                    |              | X            |               |          | X     |
| 9             | DV05E02       | 12/1/2005                | Design and Implement Skills-based Curriculum      | Curriculum Development (500 Hrs)     | 18,500 | N                        | X                  |           |       |       |                                    |              | X            |               |          |       |
| 10            | DV05E02       | 12/1/2005                | Design and Implement Skills-based Curriculum      | Interactive Course Materials         | 10,000 | N                        |                    | X         |       |       |                                    |              | X            | X             |          |       |
| 11            | DV05E01       | 12/1/2005                | Implement the Regional Technical Education Center | Electronics Curriculum (200 Hrs)     | 7,400  | N                        | X                  |           |       |       |                                    |              | X            |               | X        | X     |
| 12            | DV05E01       | 12/1/2005                | Implement the Regional Technical Education Center | Metals Curriculum (200 Hrs)          | 7,400  | N                        | X                  |           |       |       |                                    |              | X            |               | X        | X     |
| 13            | DV05E01       | 12/1/2005                | Implement the Regional Technical Education Center | Mechanics Curriculum (200 Hrs)       | 7,400  | N                        | X                  |           |       |       |                                    |              | X            |               | X        | X     |
| 14            | DV05E02       | 12/1/2005                | Design and Implement Skills-based Curriculum      | Full-time Faculty Coordinator (1.00) | 80,000 | R                        | X                  |           |       |       |                                    | X            | X            |               |          | X     |