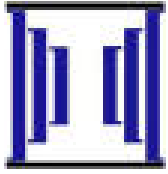


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North Carolina Community College System



# **Strategic Plan for Distance Learning**

2003-2004 through 2008-2009

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Approved by the  
North Carolina Community College Presidents Association  
January 23, 2004

# Strategic Plan for Distance Learning

2003-2004 through 2008-2009

FOR THE  
NORTH CAROLINA COMMUNITY COLLEGE SYSTEM

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## Introduction

The Virtual Learning Community (VLC) was implemented in 1997 to assist in managing the growth of web-based distance learning courses springing up throughout the North Carolina Community College System. The VLC added to an impressive number of distance learning courses already delivered by videocassette, television, and interactive video. Although only curriculum courses have been developed thus far, the VLC was originally intended to develop both curriculum and occupational continuing education courses. The chart below shows the impressive growth in the totals of curriculum registrations over the past few years:

Course Type	1998-99	1999-00	2000-01	2001-02	2002-03	4 yr. % change
<b>Web Courses</b>	9,599	17,251	30,352	55,526	83,414	769%
<b>Telecourses</b>	17,497	18,585	14,614	15,542	15,372	-12%
<b>Two-Way Video</b>	5,028	7,168	6,261	8,348	9,278	85%
<b>Other</b>	1,232	1,345	2,570	3,407	3,864	214%
<b>Totals</b>	<b>33,356</b>	<b>44,349</b>	<b>53,797</b>	<b>82,823</b>	<b>111,928</b>	<b>236%</b>

Table 1: Registration History in Curriculum Courses.  
Source: NCCCS Data Warehouse

In the table above, web courses are those courses delivered online, and telecourses are either broadcast or videocassette content mentored by a college instructor. Two-way video courses include classes taught over the North Carolina Information Highway and other interactive video networks. Other courses include teleweb courses, satellite, and other delivery methods.

As a measurement model, assume an average of 3 credit hours per registration, and 16 credit hours per semester in a 2-semester year is equivalent to 1 full-time equivalency. During the 2002-03 academic year, one curriculum FTE was worth \$3,850. Using this figure, distance delivered courses contributed approximately \$13,466,337.50 of revenue to the state's colleges.

Continuing education has also seen an explosion in the number of students demanding distance-delivered courses. Colleges throughout the state have used a number of different delivery methods, including on-line courses, interactive video, and telecourses to deliver high-quality instruction to adult learners both inside and outside the state.



Table 2 shows the explosive growth in distance-delivered continuing education courses. Measuring using FTE, note the significant growth in distance delivered courses in this area, as well as in the curriculum area.

	2000-2001	2001-2002	2002-2003	Totals
Number of Students Served:	1,353	10,697	16,083	28,133
Membership Hours	33,150	277,284	465,363	775,797
Cont. Ed. ICR FTE	48.17	403.00	676.35	1,127.52

Table 2: Registration History in Continuing Education Distance Learning Courses, 2001-2003  
Source: NCCCS Data Warehouse

In 2001-02, the average level of funding for a continuing education FTE was \$3,850. Using this funding level for 2002-03, approximately \$2,603,948 of revenue was generated for colleges throughout the state. Table 3 below shows the growth in FTE over the past three years.

	2000-2001	2001-2002	2002-2003
Curriculum FTE	1,681.16	2,588.22	3,497.75
Continuing Education FTE	48.17	403.00	676.35
Total FTE	1,729.33	2,991.22	4,174.1
<b>Percent Growth</b>		<b>72.97%</b>	<b>39.55%</b>

Table 3: Growth in FTE from 2000-01 to 2002-03  
Source: NCCCS Data Warehouse

Because of the importance of the development of high-quality courses for the North Carolina Community College System, the VLC uses a system of yearly cycles to obtain funding and seek faculty developers from across the state to develop courses. These courses, when complete, are placed into the VLC Library, and are available on the Web to colleges in the System free of charge. Every year, new courses, developed by experts in their fields, are added to the VLC Library.

Courses in the VLC Library are formally reviewed every two to three years to ensure that they remain current.

The Table 4 shows statistics regarding the development process for the academic year 2002-03:



A Snapshot of the VLC for 2002-03:	
Number of curriculum courses available for download from the VLC .....	149
Total number of Web-based courses used in the NCCCS .....	904
Current number of courses in development.....	20
Current number of courses in editing .....	35
Number of degrees available (AA, AGE, AAS).....	3
Number of AAS programs available .....	17
Distance education courses as a % of curriculum courses.....	6.39%
Most popular course .....	<b>CIS 110 (Intro to Computers) – 54 colleges</b>
Second most popular course .....	<b>ENG 111 (Expository Writing) – 50 colleges</b>

Table 4: Snapshot of VLC Development for 2002-03  
Source: NCCCS Data Warehouse

The field of Basic Skills has also been able to utilize distance learning in a very productive way. In 2002, there were 226 students enrolled in courses where asynchronous video was used as a method of instruction. Although there was a slight decrease to 221 in 2003, it is expected that there will always be some percentage of the population of Basic Skills students that will take advantage of distance learning delivery methods.

Table 4 below shows the number of students enrolled in distance-delivered Basic Skills Courses:

	2002	2003
Number of Students Served	226	221
Percent Growth		-2%

Table 5: History of Students enrolled in Basic Skills Video-Based Courses  
Source: NCCCS Data Warehouse



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## Projections of Future Growth

All indications are that distance learning enrollments will continue to grow. According to John Bailey, Director, Office of Educational Technology at the U.S. Department of Education, "Distance education is both a sign of the times and a harbinger on the future delivery of education services."

A survey conducted by Babson College and the Sloan Consortium indicates growing respect among some college administrators - including presidents and chief academic officers - for the *quality* of online courses. One-third of the roughly 1,000 survey respondents expect the quality of online courses at their institutions to surpass that of in-class courses within three years. Fifty-seven percent said the quality of Web-based classes already rivals that of in-class teaching<sup>1</sup>.

An article in the Chronicle of Higher Education in 2002 attributed the expected continuation of a 50% to 60% increase in online courses at the University of Phoenix to the "synergy between their on-ground campuses and the online division...that they have a widespread physical presence, so potential online students can easily go visit the physical campuses and see how customer-oriented they are."

Based on assessments such as these, and the experience of the NCCCS' VLC, we expect a growth in distance learning curriculum enrollments of 112,000 to 381,000 in five years.<sup>2</sup>

### Curriculum Course Projections

According to the Gibson-Nolan Model<sup>3</sup>, the introduction of information technology into an organization is characterized by several distinct phases, one of which is explosive growth. The model shows that the rate of growth levels off over time.

The rate of growth enjoyed by the VLC from 1998 to 2003 can not be sustained. Like applications of most types of technology, the rate of growth is expected to level off over time. In anticipation of this leveling, a more conservative rate of growth is anticipated. With this in mind, Table 5 below shows past growth and projected enrollments for curriculum-based courses using both conservative and liberal estimates of growth.

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<sup>1</sup> Chronicle of Higher Education, 4 September 2003.

<sup>2</sup> See Table 6 and Figure 1 in this document.

<sup>3</sup> (Nolan, R. L. and C. F. Gibson (1974). Managing the Four Stages of EDP Growth, Harvard Business Review (January-February).



Past Years	1998-99	1999-00	2000-01	2001-02	2002-03	
DL Enrollments	33,356	44,349	53,797	82,823	111,928	
Rate of Growth		32.96%	21.30%	53.96%	35.14%	
Future Years	2003-04	2004-05	2005-06	2006-07	2007-08	2008-09
Upper Estimate	139,910	174,888	215,112	264,587	317,505	381,006
% Change	25.00%	25.00%	23.00%	23.00%	20.00%	20.00%
Lower Estimate	122,002	132,982	143,620	155,110	165,967	177,585
% Change	9.00%	9.00%	8.00%	8.00%	7.00%	7.00%

Table 6: Past and Projected Registrations in Curriculum Distance Learning Courses, 1998-2008  
Source: NCCCS Data Warehouse

As the table above shows, even the most conservative estimate of the rate of growth shows an increase, such that by the 2008-09 academic year, there will be over 170,000 enrollments in distance learning courses statewide. This would include web-based courses, telecourses, interactive video courses, and others. Shown below is a representation of both aggressive and conservative estimates of growth for curriculum distance learning classes:

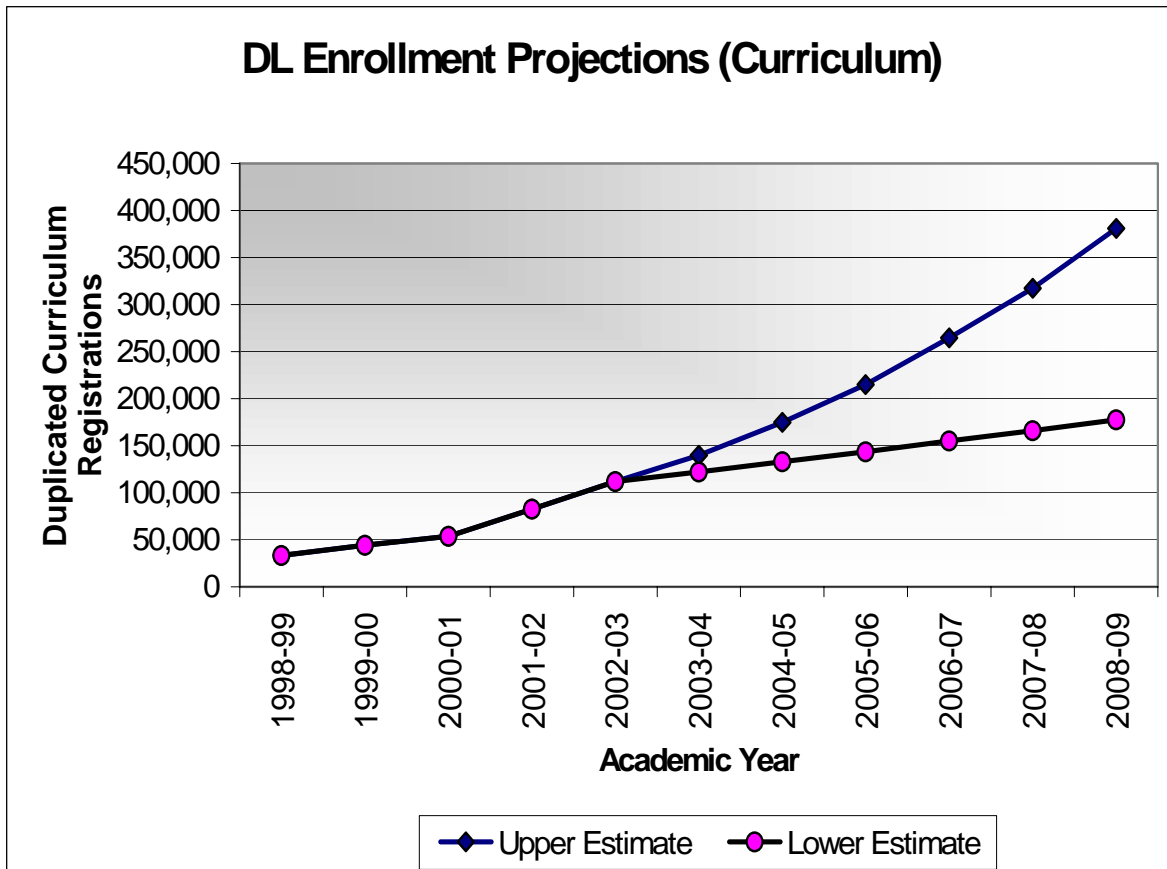


Figure 1: Upper and Lower Bounds of Growth in Curriculum DL Enrollment





Please note that the registrations reflected above are only for those courses that are entirely delivered via distance learning methods. Many colleges are now offering hybrid courses and also using the BlackBoard course management system as an adjunct to traditional classes. This is an area of utilization that does not appear when analyzing distance learning courses, and serves to underscore the high demand for the use of a course management system (CMS).

**Occupational and Continuing Education Distance Learning Growth Projections**

The implementation of this distance learning plan will attempt to capitalize upon economies of scale and assist colleges in satisfying the demand for distance-delivered occupational and continuing education courses. We anticipate that demand for continuing education courses will continue to rise, but again, at a slower rate.

Table 6 shows past growth and projects enrollments for occupational and continuing education courses using both aggressive and liberal estimates of growth.

Past Years				2000-01	2001-02	2002-03
FTE				48.17 <sup>4</sup>	403.00	676.35
Rate of Growth					737%	68%
Future Years	2003-04	2004-05	2005-06	2006-07	2007-08	2008-09
Upper Estimate	845.44	1,056.80	1,299.86	1,598.83	1,918.59	2,302.31
% Change	25.00%	25.00%	23.00%	23.00%	20.00%	20.00%
Lower Estimate	737.22	803.57	867.86	937.29	1,002.90	1,073.10
% Change	9.00%	9.00%	8.00%	8.00%	7.00%	7.00%

Table 7: Past / Projected Registrations in Continuing Education Distance Learning Courses, 1998-2008  
Source: NCCCS Data Warehouse

Figure 2 shows the upper and lower bounds for expected growth in the number of FTE generated by distance-delivered occupational and continuing education courses.

<sup>4</sup> Statistics began accumulating in 2000-01, and FTE figures for 2000-01 represent a partial year.

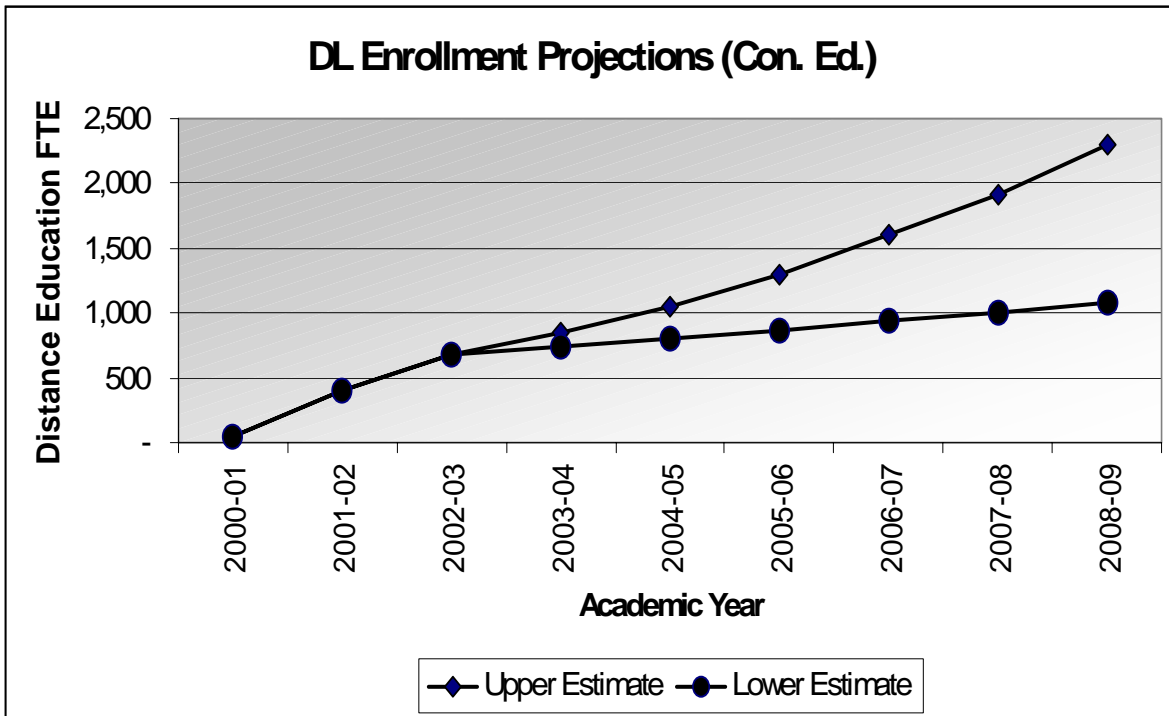


Figure 2: Upper and Lower Bounds of Growth in Con Ed DL Enrollment

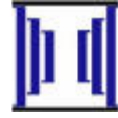
### The Purpose of This Document

Based upon the justifications in the preceding paragraphs, it is projected that there will be significant growth in distance delivered events, classes, courses, and programs for both curriculum and continuing education courses.

The rate of growth in distance delivered courses that is currently enjoyed by the North Carolina Community College System is unsustainable because we will soon run out of resources to offer distance delivered programs. The costs of hardware, technical support, maintenance, and especially software licenses are increasing quickly.

The purpose of this document is to provide a plan to manage and control the expenditures on distance delivery systems while maintaining course quality and college autonomy. This plan is a collaboration of divisions within the North Carolina Community College System Office supplemented with suggestions from personnel representing community colleges.<sup>5</sup>

<sup>5</sup> See Appendix B.



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## Vision

The purpose of the VLC is to develop, edit, and broker content for curriculum and continuing education distance learning courses and to provide professional development for distance learning faculty and staff.

The *Vision* for distance education within the North Carolina Community College System is:

*The North Carolina Community College System will assist its colleges in serving students who would otherwise be unserved, expanding learning opportunities, making instruction accessible, and using technology to supplement classroom instruction.*

*The Virtual Learning Community, supported by Learning Technology Systems, will provide hardware, software, content, and training to administrators and faculty within the North Carolina Community College System for their use in providing their students with Web-based courses, telecourses, interactive video courses, and hybrid courses.*

This plan expands upon the concepts of the VLC to include: Web based course development; telecourse acquisition and publishing; interactive video course brokering; hybrid course development; hybrid course faculty training; and consortium purchasing and resource sharing.



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## Goals and Objectives

In order to make this vision a reality, concrete, measurable goals and objectives are necessary. For the purposes of this document, the *vision* is the end state in which we want to find ourselves, a *goal* is a broad category of tasks supporting the vision, and *objectives* are measurable tasks that support the achievement of goals.

Each of these goals complements one of the goals enumerated in the *2001-2003 Strategic Plan* published and maintained by the North Carolina Community College System. For a complete listing of the goals, see Appendix A: System Goals.

Having stated the vision above, the *goals* and *objectives* for distance learning within the North Carolina Community College System are:

### Goal 1

**Provide financially sustainable hardware and software necessary to operate distance learning courses and support services.**

This goal is the responsibility of the Division of Administration, supported by the Division of Academic and Student Services.

This goal supports System Goal 13, *Acquire and maintain the facilities, equipment, and learning resources to support the educational and training objectives of the community college system* by garnering hardware and software in support of distance education. It also supports Goal 15, *Expand the distance learning options to increase educational opportunities for all adults* by increasing and stabilizing the delivery of distance learning courses.

*Objective 1.1:* Identify a course management system that is financially sustainable and supports current investment in Web-based courses.

*Objective 1.2:* Implement a course management system that is financially sustainable and supports current investment in Web-based courses.

*Objective 1.3:* Centralize Web-based courses to as few physical locations as possible to exploit economies of scale in the provisioning of servers, bandwidth, and services.

*Objective 1.4:* Expand online support resources to students, instructors, and communities.

*Objective 1.5:* Expand creation of convenience contracts and resource sharing among colleges.



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*Objective 1.6:* Integrate online library and student services support into distance learning and traditional courses.

*Objective 1.7:* Provide Web-based assistive technology to insure compliance with the Americans with Disabilities Act for all online courses and programs.

*Objective 1.8:* Develop a means to measure cost and effectiveness of distance learning delivery.

## **Goal 2**

**Develop high-quality, Web-based degree programs for use by all colleges in the state.**

This goal is the responsibility of the Division of Academic and Student Services, supported by the Division of Administration.

This goal supports System Goal 7, *Develop innovative and flexible programs and services that meet the needs of the workforce and the economy* by creating a means of delivering education and training in a non-traditional manner. It also supports Goal 6, *Provide educational and training opportunities that meet the needs of diverse and physically challenged populations* by increasing and stabilizing the delivery of distance learning courses.

*Objective 2.1:* On a yearly basis, issue an RFP for the creation of temporary development centers that will either develop or edit Web-based courses for state-wide publication and use.

*Objective 2.2:* Entice developers to participate in the VLC by increasing the stipend from \$500 (set in 1996) to \$750.

*Objective 2.3:* Modify and improve the Web-based course section of the NCCCS Website for better publicity, information, and operation.

## **Goal 3**

**Provide the hardware bandwidth necessary to operate interactive video courses.**

This goal is the responsibility of the Division of Administration, supported by the Division of Academic and Student Services.

This goal supports System Goal 13, *Acquire and maintain the facilities, equipment, and learning resources to support the educational and training objectives of the community college system* by garnering hardware and software in support of distance education. It also supports Goal 15, *Expand the distance learning options to increase educational opportunities for all adults* by increasing and stabilizing the delivery of distance learning courses.



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*Objective 3.1:* Conduct a study to analyze effectiveness and total costs of delivery of videoconferencing technology.

*Objective 3.2:* Identify and implement a financially sustainable and prudent strategy of providing hardware and connectivity to colleges in the state.

#### **Goal 4**

**Provide a centralized method by which colleges can arrange for partnerships for interactive video classes.**

This goal is the responsibility of the Division of Academic and Student Services, supported by the Division of Administration.

This goal supports System Goal 13, *Acquire and maintain the facilities, equipment, and learning resources to support the educational and training objectives of the community college system* by garnering hardware and software in support of distance education. It also supports Goal 6, *Provide educational and training opportunities that meet the needs of diverse and physically challenged populations* by increasing and stabilizing the delivery of distance learning courses.

*Objective 4.1:* Implement a Web-based tool by which colleges can both advertise and locate course offerings.

*Objective 4.2:* Provide a web-based search function which shows the colleges with approved NCIH service area agreements based upon documentation supplied to the System Office.

#### **Goal 5**

**Implement continuous quality initiatives into content development.**

This goal is the responsibility of the Division of Academic and Student Services, supported by the Division of Administration.

This goal supports System Goal 7, *Develop innovative and flexible programs and services that meet the needs of the workforce and the economy* by increasing the quality of programs. In addition, this goal is supportive of System Goal 9, *Utilize appropriate measures of quality for the improvement of programs and services* by providing the measures to evaluate the infusion of quality measures into the distance learning program.

*Objective 5.1:* Recruit a team of distance delivery experts to audit the process for creating Web-based courses. The team should consist of experts from within and outside the North Carolina Community College System, and the audit report should be complete before the next VLC RFP is executed early in the 2004-05 fiscal year.



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*Objective 5.2:* Recruit a team of distance delivery experts to train faculty members on how to teach using interactive video (NCIH videoconferencing).

*Objective 5.3:* Recruit a team of distance delivery experts to continue the Hybrid Course Training initiative.

*Objective 5.4:* Provide resources and staff development opportunities for distance learning administrators and support staff.

*Objective 5.5:* Provide online professional development opportunities for all staff and instructors.

### **Goal 6**

#### **Respond to needs of adult learners for skills development and maximize JIT (Just in Time) DL delivery.**

This goal is the responsibility of the Division of Economic and Workforce Development, supported by the Division of Administration.

This goal supports System Goal 4, *provide learners the opportunity to develop essential skills for lifelong learning* by providing greater access to underserved adults. It also supports System Goal 6, *provide educational training opportunities that meet the needs of diverse and physically challenged populations* by increasing the options for DL offerings through occupational continuing education (OCE) and other economic and workforce development programs.

*Objective 6.1:* Develop collaborative strategies between OCE and other college programs to integrate online library and student services support into distance learning and traditional courses.

*Objective 6.2:* Expand online support resources to Basic Skills, Occupational Continuing Education, Human Resources Development Program, and Small Business Center students, instructors and communities.

*Objective 6.3* Expand Virtual Learning Community to include more Basic Skills, OCE and economic and workforce development program DL offerings.

*Objective 6.4:* Develop collaborative strategies between Basic Skills and other college programs to integrate online library and student services support into distance learning and traditional courses.



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## **Goal 7**

### **Obtain resources to develop Web based OCE offerings in response to workforce skill needs for emerging jobs in NC.**

This goal is the responsibility of the Division of Economic and Workforce Development, supported by the Division of Administration.

This goal supports System Goal 7, *develop innovative and flexible programs and services that meet the needs of the workforce and the economy* by being more responsive to the needs of current and potential employers in NC.

*Objective 7.1:* Identify resources for obtaining or developing Web-based courses that meet industry-specific training requirements.

*Objective 7.2* Provide training to Basic Skills and OCE instructors and staff in current DL course development and training practices.

*Objective 7.3:* Develop collaborative strategies between OCE and other college programs in the expanded creation of convenience contracts and resource sharing among colleges

*Objective 7.4* Include a development center to identify and develop occupational continuing education courses during the next and subsequent development cycles of the Virtual Learning Community.

*Objective 7.5:* Develop collaborative strategies between Basic Skills and other college programs in the expanded creation of convenience contracts and resource sharing among colleges.

## **Goal 8**

### **Respond to the workforce needs of the biotechnology occupational cluster by maximizing DL alternatives.**

This goal is the responsibility of the Division of Economic and Workforce Development, supported by the Division of Administration.

This goal supports System Goal 1, *in collaboration with Regional Economic Development Partnerships, identify the workforce needs of emerging jobs in rural and urban economics of North Carolina* and System Goal 2, *develop and implement the educational and training programs necessary to meet the workforce needs of each region and college service area* by providing access and flexible DL training designed to meet specifications of emerging industries such as the biotechnology industry.

*Objective 8.1:* Develop OCE DL courses to meet biotechnology industry training requirements for current and potential employees and employers.





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*Objective 8.2:* Design and develop a Web-based biotechnology course section of the NCCCS website for better publicity, information and student recruitment.

## **Governance**

The Virtual Learning Community, once restricted to Web-based courses only, will grow to include Web-based courses, NCIH courses, telecourses, and hybrid courses.

The North Carolina Community College Presidents Association has two committees that work with Virtual Learning Community: the *VLC Steering Committee* and the *Technology Committee*. The VLC Steering Committee is charged with delivering high-quality distance learning courses, using Web-based courses, interactive video (NCIH or other) courses, telecourses, and other means. The Technology Committee is tasked with providing the infrastructure to deliver the courses, which includes the Learning Management System, connectivity, bandwidth, and other hardware devices.

The Distance Learning Council, made up of representatives from colleges within the North Carolina Community College System, will be charged with working with the VLC Steering Committee of the North Carolina Community College Presidents' Association to recommend and set policy in conjunction with the Presidents Association.

The Learning Technology Advisory Committee will be charged with advising the Technology Committee and the Presidents' Association on matters regarding infrastructure, that include learning management system platform, connectivity, bandwidth, and hardware issues.

The Division of Administration will act as staff to the governing bodies on issues of infrastructure and funding.

The Division of Academic and Student Services will act as staff to the governing bodies on issues of content and pedagogy.

Figure 3 shows the relationship between various governing bodies with regard to setting distance learning policy.

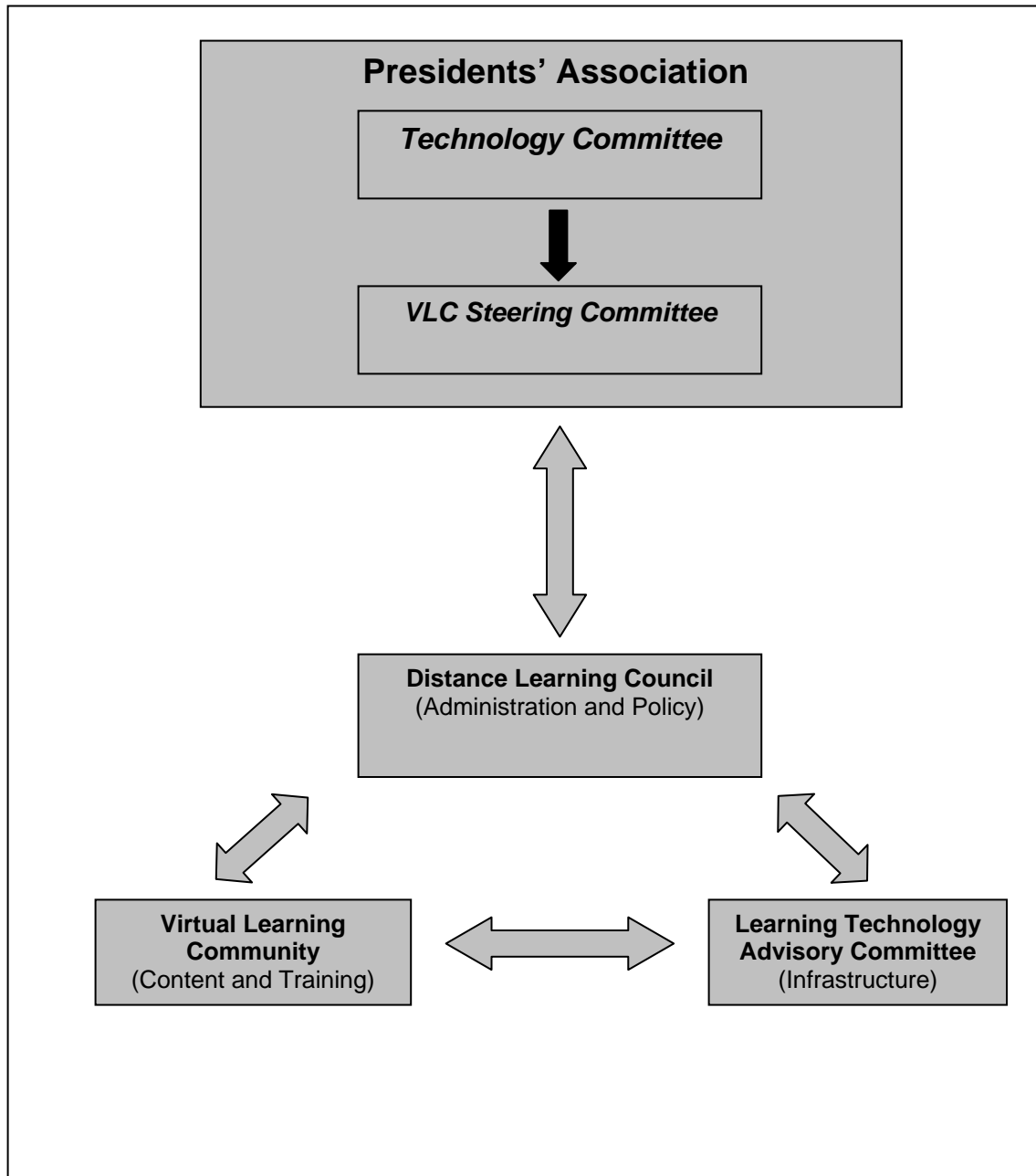
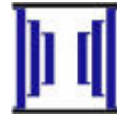


Figure 3: DL Governance Within the North Carolina Community College System



## Funding

Sufficient budget resources to accomplish each of the objectives laid out in previous sections do not exist. Since its beginning, the VLC has been primarily supported with federal dollars from the Carl D. Perkins Vocational and Technical Education Act of 1998. In order to accomplish our objectives and lessen dependence on federal dollars, we are required to maximize the effectiveness of our current budget through expansion of convenience contracts, consortium agreements, and resource sharing.

In order to be successful, we must create and expand partnerships with North Carolina Universities, the North Carolina Department of Public Instruction, the North Carolina State Library, The Independent Colleges Association, related North Carolina state agencies, and private sector collaborators.

There are some objectives that can not be met without external funding. Shown below in Table 7 is a matrix showing which objectives can be met without funding:

Objective	Met Without funding	Met with Partial Funding	Met with External Funding
Objective 1.1: Identify a course management system that is financially sustainable and supports current investment in Web-based courses.	4		
Objective 1.2: Implement a course management system that is financially sustainable and supports current investment in Web-based courses.			4
Objective 1.3: Centralize Web-based courses to as few physical locations as possible to exploit economies of scale in the provisioning of servers, bandwidth, and services.			4
Objective 1.4: Expand online support resources to students, instructors, and communities.		4	
Objective 1.5: Expand creation of convenience contracts and resource sharing among colleges.	4		
Objective 1.6: Integrate online library and student services support into distance learning and traditional courses.			4
Objective 1.7: Provide Web-based assistive technology to insure compliance with the Americans with Disabilities Act for all online courses and programs.			4
Objective 1.8: Develop a means to measure cost and effectiveness of distance learning delivery	4		
Objective 2.1: On a yearly basis, issue an RFP for the creation of temporary development centers that will either develop or edit Web-based courses for state-wide publication and use.			4
Objective 2.2: Entice developers to participate in the VLC by increasing the stipend from \$500 (set in 1996) to \$750.		4	
Objective 2.3: Modify and improve the Web-based course section of the NCCCS Website for better publicity, information, and operation.	4		



Objective 3.1: Conduct a study to analyze effectiveness and total costs of delivery of videoconferencing technology.		4	
Objective 3.2: Identify and implement a financially sustainable and prudent strategy of providing hardware and connectivity to colleges in the state.			4
Objective 4.1: Implement a Web-based tool by which colleges can both advertise and search course offerings.		4	
Objective 4.2: Provide a Web-based search function which shows which colleges have approved NCIH service area agreements based upon documentation supplied to the System Office.	4		
Objective 5.1: Recruit a team of distance delivery experts to audit the process for creating Web-based courses. The team should consist of experts from within and outside the North Carolina Community College System, and the audit report should be complete before the next VLC RFP is executed early in the 2004-05 fiscal year.		4	
Objective 5.2: Recruit a team of distance delivery experts to train faculty members on how to teach using two-way video (NCIH videoconferencing).		4	
Objective 5.3: Recruit a team of distance delivery experts to continue the Hybrid Course Training initiative.		4	
Objective 5.4: Provide resources and staff development opportunities for distance learning administrators and support staff.		4	
Objective 5.5: Provide online professional development opportunities for all staff and instructors.			4
Objective 6.1: Develop collaborative strategies between OCE and other college programs to integrate online library and student services support into distance learning and traditional courses.	4		
Objective 6.2: Expand online support resources to Occupational Continuing Education, Human Resources Development Program, and Small Business Center students, instructors and communities.			4
Objective 6.3: Expand the Virtual Learning Community to include more OCE and economic and workforce development program DL offerings.		4	
Objective 6.4: Develop collaborative strategies between Basic Skills and other college programs to integrate online library and student services support into distance learning and traditional courses.	4		
Objective 7.1: Identify resources for obtaining or developing Web-based courses that meet industry-specific training requirements.		4	
Objective 7.2: Provide training to Basic Skills and OCE instructors and staff in current DL course development and training practices.			4



Objective 7.3: Develop collaborative strategies between OCE and other college programs to expand the creation of convenience contracts and resource sharing among colleges.	4		
Objective 7.4 Include a development center to identify and develop occupational continuing education courses during the next and subsequent VLC development cycle.			4
Objective 7.5: Develop collaborative strategies between Basic SKills and other college programs in the expanded creation of convenience contracts and resource sharing among colleges	4		
Objective 8.1: Develop OCE DL courses to meet biotechnology industry training requirements for current and potential employees and employers.			4
Objective 8.2: Design and develop a Web-based biotechnology course section of the NCCCS Website for better publicity, information and student recruitment.			4

*Table 7: Funding Matrix*

We must establish a strategic campaign to seek funding through state, federal, and private grant resources. This campaign will utilize all available funding opportunities via partnerships, cooperative agreements, and experimental teaching/learning initiatives.



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## **Implementation**

The paragraphs below represent some of the tasks that require completion before our projects commence.

### **Establishing the Learning Technology Advisory Committee**

The Learning Technology Systems (LTS) Department has been established to provide technical infrastructure and support for distance learning throughout the North Carolina Community College System and to integrate distance learning support and library services at the System Office.

To facilitate this mission, the creation of an advisory committee is proposed to provide the LTS staff with input from selected leaders representing the NCCCS. Representatives will be drawn from distance learning administrators and the Library Resources Association. Partnering organizations include external entities such as Information Technology Service (ITS), the North Carolina National Guard, the North Carolina Highway Patrol, the University of North Carolina General Administration, and the North Carolina Department of Public Instruction.

The Learning Technology Advisory Committee will assist staff to the governing bodies by exploring means of expanding and promoting distance learning, and by expanding partnerships for collaboration, resource sharing, and funding.

### **Expanding the Virtual Learning Community**

The success of the VLC is well documented and needs to be expanded to include Continuing Education courses, Basic Skills courses, and the biotechnology initiative.

The VLC also needs to be expanded to provide online student services for distance learners, students with disabilities and traditional students.

### **Continuation and Expansion of NCLIVE**

NCLIVE has received a SACS Commendation and provided unparalleled support for distance learning and traditional students in all curricular areas. Contract negotiations for NCLIVE will begin in 18 months. It is imperative that NCLIVE continue as the primary online resource for the NCCCS.

### **Project Schedule**

*This section is to be developed at a later date.*



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## Appendix A: System Goals

The numbered list below represents the 16 goals published by the North Carolina Community College System in its *2001-2003 Strategic Plan*.

### **Train the Workforce for Emerging High-Skill Jobs and a Changing Global Workforce**

1. In collaboration with *Regional Economic Development Partnerships*, identify the workforce needs of emerging jobs in rural and urban economies of North Carolina.
2. Develop and implement the educational and training programs necessary to meet the workforce needs of each region and college service area.
3. Promote recruitment, retention, and development of high quality faculty and staff necessary to achieve the educational and training objectives of the community college system and provide North Carolina with a world-class workforce.

### **Serve the Lifelong Learning Needs of Diverse Populations**

4. Provide learners the opportunity to develop essential skills for lifelong learning.
5. Upgrade and retain learners for the workplace through flexible, accessible, customized educational and training programs.
6. Provide educational and training opportunities that meet the needs of diverse and physically challenged populations.

### **Promote Quality and Flexible Programs and Services.**

7. Develop innovative and flexible programs and services that meet the needs of the workforce and the economy.
8. Expand public awareness of and support for the North Carolina Community College System.
9. Utilize appropriate measures of quality for the improvement of programs and services.

### **Procure and Allocate Essential Resources for the System**

10. Continuously research, analyze and secure the funding necessary to fulfill the mission of the North Carolina Community College System.
11. Assess and modify allocation methods to ensure equitable distribution of funds that meet the needs of the North Carolina Community College System.



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12. Develop processes for measuring the effectiveness of resource allocations and utilization.
  13. Acquire and maintain the facilities, equipment, and learning resources to support the educational and training objectives of the community college system.
  14. Encourage and support faculty and staff in the effective and efficient uses of instructional technology and administrative computing systems.

**Leverage the Power of Technology**

15. Expand the distance learning options to increase educational opportunities for all adults.
16. Develop, implement, and evaluate the new *management information system*.





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## Appendix B: Acknowledgements

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