

Chapter 9: Request to Deliver Degree Programs at a Distance

Introduction

Valley City State University seeks approval from The Higher Learning Commission to deliver programs off campus via distance education technologies. Technology education will be the first program delivered. While distance delivery of courses is not a major focus for VCSU, the University has identified technology education and perhaps other programs in the future as critical in meeting the educational needs of North Dakota or the nation. VCSU has determined that the best way to meet these needs is through online distance delivery of the technology education program.

Insuring access to higher education for the citizens of North Dakota is also a clear priority in the North Dakota Legislative Council Interim Committee on Higher Education Roundtable Report. In Cornerstone #4, Accessible System, the report reads, “Campuses must develop alternative delivery opportunities responsive to the needs of all students—in time, place and format.” With acceptance of the report by the State Board of Higher Education, VCSU is prudently pursuing ways in which it can “develop alternative delivery opportunities” as suggested in Cornerstone #4. VCSU recognizes the challenges faced by a small institution in providing online learning. Developing, delivering, and supporting entire programs online require considerable resources.

A Title III grant provided the funds to renovate the technology education program and update student services to meet the needs of distance students. VCSU is also in the process of integrating online software (Blackboard) into many of its tradition courses. The Blackboard initiative allows for a customized approach and gives students ready access to course materials and information. Three initiatives provide the framework through which VCSU students will experience new and enhanced learning opportunities: offering the technology education program at a distance, updating student services to a web-based format and integrating Blackboard software into tradition courses.

The Customized Learning Approach

In the Fall 1997 opening address to the University, Dr. Chaffee, president of Valley City State University, called for open, flexible access to education, mass customization of education, and learner-directed processes. VCSU’s definition of the customization of education does not refer to traditional distance education but rather learning that is self-paced, full-or part-time, any place, experiential, career-focused, lifelong, and targeted to meet the learners’ goals.

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The main drivers behind the strategy of customized learning are:

1. A desire to improve teaching and learning,
2. Competition from institutions engaging in distance learning, including in-state and out-of-state higher education institutions as well as relatively new commercial entities,
3. Demographics – changes in population: North Dakota will experience a 25 percent decline in high school graduates over the next decade, and
4. Increased expectations in all sectors of the economy for individualized services.

The Planning Process

During the 1999-2000 academic year, the Technology Advisory Committee (TAC) engaged in its annual technology planning process. Fundamental to this process is a discussion of vision and plans for achieving institutional goals. Customized learning was the focus of that year's planning process. The committee identified projects related to customization currently under discussion or in progress on the campus. They included the following:

1. Training faculty in the use of Blackboard (online course management software) for all courses.
2. Delivering complete programs (such as technology education) in a customized manner, including significant online components,
3. Delivering general education courses (in person, via ITV, or online) to high school students under the dual credit enrollment option,
4. Growing programs at off campus sites with or without the use of distance learning techniques, such as the Jamestown program, NDSU program, or the Network Center partnership,
5. Implementing (and creating if necessary) an Abilities tracking software,
6. Re-engineering general education to create a more consistent experience and to re-distribute faculty time,
7. Reducing the number of low enrollment courses (where practical) through partnering, thereby releasing some faculty time for reinvestment, and
8. Using technology to exchange international learning opportunities.

TAC identified those projects that best fit the institutional goals and those with the greatest impact on students and instruction at VCSU. The committee reported its recommendations to the Executive Team. The Executive Team in agreement with TAC focused on 1) faculty training in the use of Blackboard for creating hybrid courses (the use of Blackboard components within a traditional course) and 2) the delivery of the technology education program in a customized manner as a high priority for the campus.

The recommendations resulted in the hiring of a coordinator for online teaching and learning in the Summer of 2000. Throughout the 2000-2001 academic year this individual offered Blackboard trainings for faculty, assisted faculty with online

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pedagogy and best practices, and facilitated improvements in online student services for all VCSU students.

On October 27, 2000 TAC was formally charged by the Vice President for Academic Affairs with recommending to the Institutional Improvement Committee (IIC) appropriate goals, strategies, measures, and policy direction for VCSU with respect to (a) distance delivery by any means and (b) online delivery, whether at a distance or not (referred to as hybrid course work). The Technology Advisory Committee added three personnel while completing the charge: 1) the Title III project director, 2) the Title III administrative coordinator of customized learning, and 3) an appointee from student services. TAC took the following steps to complete the charge:

- 1) Developed definitions for campus use:
 - Online Learning: Communication and distribution of instruction via computers that are at least periodically networked.
 - Distance Education: Delivery of instruction where the instructor and/or one or more students are physically separated from the VCSU campus.
- 2) Developed a set of educational goals for online learning/distance education. (Further expansion of these goals is available in the TAC minutes.)
 - a. Maintain quality
 - b. Develop the regional IT economy
 - c. Improve teaching and learning
 - d. Increase access to the VCSU education experience
- 3) Identified the campus purposes for online instruction:
 - a. We believe it can help us customize learning and services.
 - b. We believe hybrid course delivery can improve learning.
 - c. We believe that we can provide quality, distance learning instruction to under-served markets.

The committee reported its results to the IIC for integration into the strategic planning process.

Distance Online Learning Initiative (Technology Education Program)

The University identified in the technology education program several opportunities that made it a priority for the first fully online customized program to be offered both on-campus and at a distance. Those opportunities are:

- Technology education is a strategic niche for VCSU. There is a national shortage of technology education teachers to fill vacant positions: North Dakota is in immediate need of 20 and by the year 2002, there will be a nationwide need for 13,000 technology educators.
- VCSU has identified a number of potential online customers including 1) non-teaching elementary and secondary teachers (there are 2838 teachers in North Dakota who are not teaching), 2) in-service elementary teachers,

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3) in-service secondary teachers, 4) pre-service technology education majors and 4) pre-service elementary education majors.

- There is a nationwide shift from the older industrial arts model of technical education to a more hands-on, applied science approach. Part of the transition for school districts is the retraining of existing industrial arts teachers. This supplies an additional large potential clientele for VCSU’s technology education program.

The challenge to VCSU is to transfer a “hands-on” curriculum to an online format that is capable of being offered at a distance. In order to meet the opportunities and the challenge, VCSU sought a grant to renovate the technology education program. Toward that end, VCSU won a \$1.7 million federal Title III grant in 1998. It encompassed two components:

- Component one funds renovation of the VCSU technology education degree program to align it with the institution’s strategic plan, with state and national curriculum frameworks and standards, and to meet an immediate critical need for qualified technology educators.
- Component two funds renovation of VCSU’s administrative and support systems. This action will allow VCSU to meet the needs of new groups of learners enrolled in academic programs offered through a customized learning approach as well as increasing the access to student services for on campus students. The grant enables VCSU to develop the support systems and the administrative systems necessary for a customized curriculum in technology education and other programs.

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The five-year Title III grant is near the end of its third year and has received notification of funding for its fourth year. Both components are meeting the objectives as defined in the grant. Component one is ahead of schedule in course creation while component two is slightly behind because of NDUS budgeting for an up-to-date administrative component for the campuses.

Internal Program Evaluation

In the Fall of 2000 members of the technology education department completed a program review. The process included review of the new online courses using the new International Technology Education Association (ITEA) standards. A divisional review committee completed a faculty evaluation, based on institutional requirements, of the technology education online instructor. The program review, faculty evaluation, and ITEA standards course matrix are available in the resource room. Based on the program review, the changes in the national ITEA standards, and the online delivery method, four new program goals were developed. The new goals of the technology education program are to:

1. Provide accessible, superior educational opportunities in technology education for students via convenient, flexible, and responsive means of customized learning. Learning opportunities are provided for public school technology teachers and pre-service teachers through a standards-based curriculum and

maintenance of modern facilities. The Technology Education Department provides opportunities for career-change adults through customized learning including online courses, summer and weekend workshops, and weekend open laboratory times. The courses allow students, especially adult learners, to complete coursework at their own pace when and where they are most comfortable.

2. Provide a thorough, contemporary standards-based curriculum that ensures that all students receive a core of technological knowledge in preparation to be effective technology education instructors.

Technology education courses are based on national technology content standards developed by the International Technology Education Association (ITEA) in cooperation with the National Science Foundation, NASA, and the National Academy of Engineering. These standards represent the best thinking within the discipline to develop technologically literate citizens for the future.

3. Provide a framework of what students should know and be able to do in order to be technologically literate citizens in a society with a growing reliance on technology.

The courses provide an ambitious framework for guiding student learning. The content standards are carefully written to be age-appropriate and increasingly sophisticated in concepts and abilities as students mature and progress. Students will develop an understanding of the nature of technology, its effects on society, as well as design in engineering and various systems.

4. Focus on continuous improvement in the technology education curriculum in order to serve learners in the most efficient, organized, and effective manner.

Another change implemented because of the program review and an external review by Eduprise, was the splitting of each of the three-credit courses into a two-credit online course and a one-credit on-ground lab. This structure permitted rapid development of courses to occur as recommended by the Eduprise consultants as well as creating more flexible course offerings. Two of the courses, Exploring Technology and Engineering Technology, currently have one-credit online labs and the intent is to put all one-credit labs online in the future. This process will begin following the scheduled completion of all fourteen courses. Online development of the labs is dependent on the technology available to distance students.

Faculty Evaluation

- Faculty members who teach in the program are subject to the same requirements and standards as all VCSU faculty.
- The department evaluates instructors according to University policy regarding tenure and promotion. (See Policy V605.1 Academic Freedom and Tenure; Academic Appointments)

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- Instructors complete a Reflection Form for each course as students progress through the courses, noting carefully and specifically the effectiveness of the course units and unit components, student completion rates, how well they were able to learn, and other key factors. This document is used at the end of each semester (including summer session) to make any needed revisions in the courses. Other input sources are used to make revisions, such as the Change Log Discussion Forum in each course, and any external assessments that may have occurred for that course in that semester.
- Workshop evaluations can be used for instructor assessment.

Other assessment inputs may include student retention in program/courses, and feedback from students while taking courses and advising.

The program and course assessment is comparable to the practice currently used for all programs and courses at the university. Appropriate assessment mechanisms are developed, and data gathered and analyzed.

Assessment of Student Learning

- **Digital Portfolio:** Students in the program create a digital portfolio for graduation based on the VCSU Abilities model. This portfolio is a performance-based assessment that provides concrete, visible evidence of student learning. This development is aided by the requirement in every technology course that the future teacher must document, in digital slide show format, the activity in progress. For at least one unit activity, VCSU students are asked to go through, or repeat, the unit with children of appropriate age level to document the reactions of children they have selected to assist with the units. Students are given a clear explanation at the beginning of each course along with a rubric that is used to assess the portfolio pieces. After completing all the courses in the technology education major or minor, the student then has many smaller portfolio pieces to assemble along with other items into a final digital portfolio in order to meet the graduation requirement. Students document their own learning through the portfolio process, in which they show a progression of student competency starting with their first course in the technology education curriculum.
- **ITEA standards addressed in unit objectives:** Content, process, and context are woven together in integrated multimedia units. Students are asked to proceed through the units in much the same fashion as they will ask youngsters to proceed when they, the new teachers, enter the classroom for the first time. In each technology course, there are several items that result in a form of assessment of the student, including a reading assignment, WebQuest, activity, reflection questions, and the portfolio documentation. A rubric within each course standardizes student assessment of the student documentation no matter which instructor is teaching the course. The rubric criteria relate back to the unit objectives. It is also possible to view the amount of time, the students spent working within the course. (See Course Rubric, Syllabi and Standards Matrixes in resource room)

Students in the program create a digital portfolio for graduation based on the Abilities model. This portfolio is a performance based assessment which provides concrete, visible evidence of student learning.

- **University Abilities:** Each course provides VCSU students with a project that focuses on a selected Ability and Skill, and Levels. The projects allow the student to experience the Ability within the content of the technology education curriculum. Assessment of the Abilities and Skills is described in the campus-wide and program assessments. (See *VCSU 2001 Assessment of Student Learning* plan.)
- **Teacher Education:** Students pursuing a VCSU technology education degree must meet all criteria for admission to and continuance in the general teacher education program (see *2000-02 Bulletin* pp. 36–38). The Technology Education Department utilizes this entire process including the maintenance of 2.5 grade point average, student teaching process, and certification recommendations. Students who already have a teaching degree and/or certificate pursuing technology education as a second degree must meet state certification requirements.

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For more information, see the 2001 technology education program review and complete program assessment in the resource room.

External Evaluation of Courses and Program

The Title III grant provides for a Technology Education Curriculum Team, comprised of ten North Dakota teachers drawn from different grade levels, to help develop and write curriculum, evaluate progress, and beta test activities in their own classrooms. These individuals hold sessions devoted to curriculum planning and course writing twice a year. Members of the team also evaluate courses each year based on their representative level. Teams of two or three teachers evaluated four courses during 2000-01. This process will continue until all 14 courses have been evaluated in-depth over the next four years. These initial course evaluations are extremely thorough. For future evaluations, outside consultants will be part of the University’s program review rotation. They will test changes and review specific items within the courses.

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Table 9.1 indicates the courses already reviewed and the year in which all in-depth course reviews are to be completed. Courses are listed by title and by credentialing level. Professional (level) indicates methods classes required of all majors and minors.

<i>Level</i>	<i>Title</i>	<i>Credits</i>	<i>Evaluation Year</i>	<i>Courses Reviewed</i>
Middle	Exploring Technology	3	2000	X
High	Engineering Technology	3	2000	X
Professional	Intro to Tech Ed	1	2000	X
Professional	Curriculum & Methods	2	2000	X
Professional	Resources for Technology	3	2001	
Professional	Intelligent Machines	3	2002	
Elementary	Inventions & Innovations	3	2001	
Middle	Innovation & Engineering Design	3	2001	
High	Applying Technology	3	2001	
Elementary	Design, Tech, & Eng. For Children	3	2002	
Middle	Technology Systems	3	2002	
High	Tech & Entrepreneurship	3	2002	
High	Foundations of Technology	3	2003	
High	Technology Assessment	3	2003	

Table 9.1. Courses and Reviews

Eduprise, a consulting firm, was contracted by VCSU in March of 2000 to give university leaders feedback on VCSU's institutional capacity to integrate online technology more fully into its academic programs, to support online technology use by the faculty, to incorporate training in online pedagogy into a comprehensive faculty development plan, and to use web-based technologies to enhance and deliver VCSU academic programs and student services. The findings and recommendations address institutional environment, technology education, governance and leadership, technology infrastructure, learners and learning infrastructure, faculty professional capacity, learning environments, student services, and recommendations for current and future online courses. The curriculum developer has implemented all course changes recommended by Eduprise for the online technology education courses. The office of student affairs is implementing many of the student services recommendations. The comprehensive report is available in the resource room.

Current Status of the Technology Education Program

Currently five courses are completed in a customized format and available as scheduled in the VCSU yearlong schedule. Three additional courses are in production and will be in beta form by the fall of 2001. Eight of the proposed twelve courses needed by certified teachers to become technology education instructors will then be available to both distance and on-campus students by Fall 2001. The Technology Education faculty will complete the beta versions of the four remaining courses in 2002. They will develop the final two elective courses and make them available in 2003.

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Completion Schedule for Technology Education Courses				
<i>Develop Sequence</i>	<i>Course Title</i>	<i>Alpha*</i>	<i>Beta**</i>	<i>Final***</i>
1	Exploring Technology	Sum 99	Fall 99	Spr 00
2	Engineering Technology	Feb 00	Sum 00	Fall 00
3	Intro to Tech Ed	Dec 99	Sum 00	Spr 01
4	Curriculum & Methods	July 00	Spr 01	Sum 01
5	Resources for Technology	July 00	Spr 01	Fall 01
6	Intelligent Machines	July 00	Spr 01	Spr 02
7	Inventions & Innovations	July 00	Spr 01	Fall 01
8	Innovation & Engineering Design	July 00	Spr 01	Fall 01
9	Applying Technology	July 00	Spr 02	Spr 03
10	Design, Tech, & Eng. For Children	July 00	Spr 02	Spr 03
11	Technology Systems	July 00	Fall 02	Spr 03
12	Tech & Entrepreneurship	July 00	Fall 02	Spr 03
13	Foundations of Technology	July 01	Spr 03	Sum 03
14	Technology Assessment	July 01	Spr 03	Sum 03

Table 9.2. Completion Schedule for Technology Education Courses

*Course is outlined and syllabus completed.

**Course is available to students for the first time.

***Course is complete based on beta results.

The completed online courses are currently available in the Year-Long Schedule and a rotating schedule for all courses in the major is available in the resource room. Each summer the technology education faculty offer several of the on-ground labs. This allows flexibility for distance students who may need to travel to campus to complete these.

Although the 2000 program review indicates a low number of technology education majors and graduates, the updating of the courses, the increased online accessibility and marketing efforts by the university have stimulated renewed interest in the major.

Marketing efforts include:

1. A bulk mailing to 2800+ North Dakota teaching license holders who are not currently employed as teachers. They received a letter explaining our curriculum as well as a brochure produced by the International Technology Education Association (ITEA), explaining what is involved in the discipline and the demand for technology teachers.
2. A second mailing was sent to 895 North Dakota principals and administrators in K-12 schools. They received the same curriculum letter and ITEA brochure.
3. A third mailing was sent to 119 current technology teachers in the state. They got the same mailing along with a needs assessment which asked how and when the University should be conducting various course offerings. A compilation of this assessment is available in the resource room.
4. A survey was administered to participants in on-campus summer technology workshops. The participants were asked to supply their names and addresses

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if they were interested in completing a minor or major in technology education. Fifteen of the summer participants declared an interest in pursuing a degree in Technology Education.

Table 9.3 indicates the increase in student interest as new courses are put online. Fall 2001 enrollments are expected to be even higher.

Course Title	Fall 00 Enrollment	Spring 01 Enrollment	Summer 01 Enrollment
Exploring Technology - 2 cr.	2	6	NA
Exploring Technology - 1 cr. lab	2	2	NA
Engineering Technology - 2 cr.	2	3	NA
Engineering Technology - 1 cr. lab	2	3	NA
Introduction to Tech Ed - 1 cr.	NA	12	14
Curriculum & Methods - 2 cr.	NA	4	NA
Inventions & Innovations - 1 cr. lab	NA	NA	18
Innovation & Engineering Design – 1 cr. lab	NA	NA	12

Table 9.3. Enrollment

Vision for the Future

VCSU and the technology education faculty are also pursuing several partnerships with other universities. Discussions have begun with Dickinson State University.

VCSU is transforming the technology education program to align with state and national curriculum standards and frameworks and to meet an immediate critical need for qualified technology educators. The program will be customized to meet the learning needs of a large under-served customer base. The technology education vision for North Dakota is to provide an adequate numbers of teachers for North Dakota and the region by reaching place bound individuals, particularly certified teachers who are interested in pursuing a technology education program. The vision also provides state-of-the-art curriculum and facilities as well as appealing technology literacy opportunities for pre-service students and in-service elementary teachers. While many North Dakotans still lack the necessary bandwidth to receive high-end online courses, this deficit is being addressed by the North Dakota statewide network. The state will be providing T-1 service to every high school in the state. This will provide a digital link in most communities and improved bandwidth to individuals in those communities.

Future marketing efforts in addition to those already in place include: newspaper articles and advertising, listings in every state teacher center, education listservs in the state, and state educational website advertising. When the program is complete and all courses are available online, VCSU will contact appropriate organizations in other states concerning the availability of the program.

VCSU and the technology education faculty are also pursuing several partnerships with other universities. Discussions have begun with Dickinson State University. DSU is interested in offering the technology education major to DSU students. In addition, the faculty from the industrial technology program at the University of North Dakota have expressed an interest in offering the online technology education courses for postgraduate credit. This partnership would allow UND to provide a

Masters of Technology Education for their students. A draft of this proposal is available in the resource room. Both discussions are preliminary in nature but indications are good that they will continue to move forward.

The technology education partnerships also focus on the request of the North Dakota Legislative Council Interim Committee on Higher Education Roundtable Report. In addressing education excellence in Cornerstone #2, the report states: “The NDUS [should] be attractive, available and easily accessible to the nontraditional student, and learner outcomes for courses and programs be based, in large part, on the practical employment needs of the student.” Efforts between the universities will make the technology education degree available to placebound students who may be more employable because of the degree. In addition, offering the labs in traditional on-ground formats during the summers and on other campuses increases accessibility for North Dakota students.

The VCSU Online Learning Initiative

Since the beginning of the online learning initiative in the Summer of 2000, an increasing number of VCSU students are encountering online software (Blackboard) in their VCSU courses. During Spring of 2001, 468 or 47 percent of students used Blackboard. Data indicates that in the Fall of 2000 twenty-three courses utilized Blackboard while in the Spring of 2001 faculty applied it in forty-one courses. An estimated 80-90 percent of 2001 freshman will experience Blackboard software in at least one of their freshman courses. A Blackboard workshop is being added to freshman orientation in Fall of 2001. The coordinator of online teaching and learning created a Blackboard orientation course for new distance and online students to acclimate them to Blackboard use.

Assessment of the Online Campus Initiative

To assess the process and the effect of the online initiative, several methods have been employed including

- Classroom surveys by faculty to determine student perceptions of the use of Blackboard in their classrooms,
- Roundtable focus groups with faculty and students held once each semester. Questions focused on the ways in which faculty had used Blackboard and the students' perception of the experience,
- Faculty interviews available on CD-ROM. Faculty discuss the process of creating their courses in Blackboard,
- A database to track all courses that utilize Blackboard and courses with Blackboard components. They will be listed with indicators in the Year-Long schedule, and
- An end-of-year survey to the 468 students who experienced Blackboard in at least one course during spring semester. Questions concerned student learning with Blackboard. The return rate was 41 percent and complete results are available in resource room.

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Comments from students surveys and faculty interviews follow.

Student responses to end of academic year survey:

“This is a really great idea. It is wonderful for students who commute from other places. I wish more classes took advantage of Blackboard. I liked being able to take my quizzes online and knowing right away how I did. I also liked being able to check my grades and making sure I had all my assignments in.”

“It is a convenient tool to assist in the learning experience; it compliments the traditional classroom methods.”

“Blackboard makes it easier and quicker to get assignments done and contact others in your groups; it allows you to spend more time on class material and gives you the chance to work anytime of the day.”

“I feel Blackboard is a very important tool for VCSU and its students. I work a full-time job and have a family, but wanted to complete a second major. Blackboard allows me to take the courses I need but am unable to drive to Valley City for. Without Blackboard I would not be able to complete my second major and probably wouldn’t pursue it without it.”

“Blackboard makes it easier and quicker to get assignments done and contact others in your groups; it allows you to spend more time on class material and gives you the chance to work anytime of the day.”

Faculty responses from fall and spring roundtable discussions:

“I spent some serious time considering how to use [Blackboard] and whether I wanted to use it and what to do with it. That’s why my courses were just bits and pieces in different areas. I used Blackboard in Visual Basic to enhance the learning experience of debugging code. I posted examples of code in Blackboard. Students always knew it was in Blackboard, so it was simple for students to look at each other’s works at any time. As a result, this class got further than a regular face-to-face class.”

“I used Blackboard to give students more flexibility for doing course work.”

“I took an on-ground composition course and made it completely online. Students completed a semester’s worth of work in seven weeks. I wanted to see if students liked the convenience of completing a course in half the amount of time and if they liked doing it online. I wanted to see if students could focus intensely on one specific topic for over half of the course. I also wanted students to take ownership of their ideas by having them place their assignments in a public discussion area. Survey results suggested that students liked the convenience of finishing a course in half the amount of time and doing it online. The majority felt that they learned a lot. The majority also greatly appreciated the increased interaction with each other and the interaction with the instructor.”

“First year faculty: Students were not talking in a regular classroom. I used Blackboard to stimulate discussion in a humanities course. It worked. Students talked with each other.”

Blackboard workshops on a variety of topics were held throughout the academic year. Some of the topics were: virtual chat, enrich online learning with the WWW, assessment and gradebook, and promoting higher learning in the online environment. Charts in the appendix illustrate faculty and staff workshop attendance during fall and spring semesters. Faculty members from nearly every discipline on campus took advantage of the workshops. In the spring a large number of staff also attended the sessions.

Complete evaluation results of the online initiative are available in the Blackboard Initiative Report in the resource room.

Faculty and Staff Support & Development for Online Instruction

In 1999, VCSU applied for and received a one-year planning grant from the Bush Foundation. The planning grant allowed VCSU faculty to investigate how best to further implement online and distance learning as well as several other initiatives. Because of the planning grant, the faculty decided to develop hybrid courses for on-campus students and use their experiences with “what works” as the basis for working with distant students.

In 2000 the University received a Bush Foundation faculty development grant of \$50,000 to create further opportunities for faculty to pursue and articulate their traditional, online and distance learning innovations. In the Summer of 2000 a coordinator of online teaching and learning was hired to assist faculty in development of quality online instructional materials. Mini-grants were made available for online course development, and in May of 2000 twelve faculty attended a one-week summer institute on online instruction. Some of the outcomes of this initiative include:

1. The number of faculty using Blackboard has risen from four in Spring 2000 to twenty-four in Spring 2001.
2. Twelve online workshops were offered for faculty and staff throughout the 2000-01 academic year.
3. During each semester, regularly scheduled discussions are held through the VCSU roundtables concerning how faculty are applying online software in their courses.
4. During Spring 2001, the coordinator of online teaching and learning offered Blackboard training to student affairs and other staff personnel. Training opportunities were continued throughout the summer. As of Fall 2001 54 or 42 percent of full-and part- time staff had taken the online orientation Blackboard course.

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VCSU offers a broad range of services to assist students with academic, administrative, communication and personal needs. VCSU recognizes the merit in making many of its student services available online.

VCSU Librarians have established a web site that addresses the needs of distance students.

NDUSO Support

The North Dakota University System Online (NDUSO) is a collaborative of all public institutions in North Dakota for online course delivery. NDUSO provides support to faculty members through access to services specifically related to teaching via an electronic system. Library resources are provided to enrolled students and their faculty appropriate to a course or program delivered electronically.

Administrative and Student Academic Services

VCSU offers a broad range of services to assist students with academic, administrative, communication, and personal needs. VCSU recognizes the merit in making many of its student services available online. The current administrative core of services is handicapped by an older MIS/SIS system. At present, the university system (NDUS) has received bids for a new online administrative system. Elements of the new system may be available in two years. However, VCSU will continue to make academic services more available to students and more responsive to their needs. Results from the ACT Student Opinion Survey are used to measure levels of student use and student satisfaction with these services. Results of this survey are available in the appendix.

Current Status

Web Access to Student Information: The Web ALFI (Access Line for Information) system developed by the Higher Education Computer Network (HECN) provides students online access to such information as academic records, financial aid, and fee billing.

Online Registration: ALFI also features a Web registration system that allows students a secure environment to register or add/drop classes. This new online registration system was tested on the VCSU campus in Spring 2000. VCSU students registered online in the fall and spring semesters. A document that explains in detail how to enroll and register at VCSU is available for distance students.

Help Desk: VCSU maintains help desk support for technology-related issues. The HECN maintains student help desks on the campuses of the University of North Dakota and North Dakota State University. These HECN help desks are available system-wide to address student technology questions.

Financial Aid: VCSU is a participant in the Department of Education's Financial Aid Demonstration Program through the North Dakota University System. Because of this participation, VCSU has the opportunity to coordinate financial aid assistance for students in distance education programs anywhere in the NDUS.

Library: Library resources are available via Online Dakota Information Network (ODIN). VCSU Librarians have established a web site that addresses the needs of distance students. <<http://www.odin.nodak.edu>>.

Advising: VCSU has the responsibility of providing an advisor to work with the distance student in planning his or her academic program. Currently the advisor is the instructor for the distance course. The new VCSU advising website will make a single advising point available to distance students.

Bookstore: Currently the bookstore does not have an online presence, however, plans are underway to begin to provide this service online. Courses in the technology education program do not require books. Because the curriculum materials are so new, books are not yet available. The written curriculum content is included as part of each unit.

Student Tracking: Component two of the Title III grant specifically allocates funds for the renovation of VCSU's administrative and student support systems. Funds have been used to purchase a database to track interaction with the University from first contact through graduation.

Portal Access: Funds from the Title III grant also help make available a student online portal through which students and faculty access their online courses. These users, after logging in, can access only their own courses.

Tutoring: At the present time tutoring is not readily available to distance students. However, North Dakota University System Online (NDUSO), which received NCA approval in June 2001 to deliver degrees through online technologies, will be determining how to deploy system resources and to facilitate institutional collaboration on development, maintenance, and delivery of tutoring.

Online Services provided by HECN and NDUSO

The North Dakota Legislature has approved the funding of a technology plan for a state network. As part of that proposed plan and related budget, HECN will provide and support the following:

- Instructional design
- Training for OCM specialists
- Help desk support for faculty and students

In addition, the NDUSO will:

- Provide training in the administration and interpretation of assessment tools for online instruction,
- Facilitate the development and sharing of online learning modules,

Assessment of Student Academic Services

Student Affairs has reviewed its current processes to determine how student services can better serve both on-campus and distance students. To begin the process, student affairs initiated an assessment process to identify those services and functions

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that can migrate to the web to serve on-and off-campus students. In 2000-2001, the student affairs staff has been inventorying assessment efforts currently underway.

These efforts include identifying how the data can be used within units to improve both web and face-to-face services. The staff is considering better ways to gather and share data, to examine whether new or improved assessment tools are needed, and to identify staff training needs. Also, in an effort to assess the improvements in student access to online courses, a case study format is being applied.

Vision for the Future

Student affairs staff have been identifying information that would be valuable to all students – prospective, on campus, at a distance – and how it should be placed on the VCSU web site. A search of higher education institutions resulted in 589 schools that matched criteria similar to VCSU in size and degree programs. Information was gathered from several sites on their user friendliness and organization. These sites and their information were forwarded to the appropriate student affairs offices.

The *Guide to Developing Online Student Services* document was also shared with much of VCSU's student affairs staff. This guide is the result of a three-year Western Cooperative for Educational Telecommunications project funded by the U.S. Department of Education's Fund for the Improvement of Postsecondary Education (FIPSE). The project report was shared with the following student services areas at VCSU: bookstore, counseling, career services, enrollment services, financial aid, admissions, records, vice president for student affairs, director of student academic services and career planning and placement. Along with the results of the project, each office was given a list of sites exhibiting the best practices in specific areas as identified in the report. A student also visited 69 sites to examine the student services areas identified and make suggestions from a student's point of view. That information was also shared with student services personnel. Student services staff will complete their planning, apply the best practices identified from other institutions, and develop a broad online presence over the next several years.

The VCSU web site will undergo significant changes during the Summer of 2001. TAC charged the marketing committee to redesign the VCSU web site to facilitate use by persons and organizations outside the VCSU community, especially as a recruitment tool for new students. End users in student affairs offices will be responsible for maintaining accurate information in their section of the web site. The necessary training for the process will take place during the 2001-02 academic year. Funds from the Title III grant will purchase training for the maintenance of online services.

Because VCSU purchased a new Unix server and increased student access through its portal, VCSU is prepared to allow access to online registration as well as other online student services. Student access to all their records is slated by NDUS for development over the next two years. VCSU will also develop shadow systems and interim front-end solutions to accomplish its customized learning goals for student

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services. This need precipitated the purchase of the new Unix-based server. Equipment funds were carried over in the Title III grant from 2000 and equipment funds were budgeted for 2001 to cover the costs of the server and training.

Strengths

- VCSU faculty have shown their desire to understand and apply teaching and learning strategies in a variety of existing technology-rich environments. This interest includes using methods enhanced by the new online technologies. The faculty's experience with online software in their traditional classrooms makes the transition to teaching in a distance situation less complicated.
- Faculty are developing appropriate new benchmarks for online and traditional courses. New types of assessment, such as portfolios, Ability-based projects, and Flashlight's Current Student Inventory are currently in use or being considered. The use of Blackboard in the traditional classroom offers additional assessment options such as easily created and imported surveys, discussion formats for student options and easier access to part-time and non-traditional students.
- The Title III grant has provided funding for the creation of online distance courses within the technology education program. The experience of designing and implementing an online program has been valuable to the University.
- The Title III grant activities have facilitated changes in student services. The grant has put the University a step ahead in the planning process for transitioning all student services to a web-based format.
- VCSU is well positioned to offer the technology education program to distance students. The Title III grant has made it possible to develop high quality courses based on national standards and to develop web-based student services that benefit all VCSU students. The online Blackboard initiative on campus has enhanced faculty understanding of online pedagogy and best practices in serving online students.

Challenges

- VCSU's preparation for online distance delivery is based on a commitment to instructional quality. Effective distance delivery is more than just putting written materials on the web and establishing a discussion space. The systematic construction of standards based distances education courses is a time and money intensive undertaking.

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- Many North Dakota learners have limited internet access to their homes. Broadband capacity service is not typically available. In many cases existing telephone infrastructure limits modem access to 28.8 kilobytes throughout. This curtails the delivery of higher quality instructional materials such as streaming video.
- A significant portion of the software data needed for online student services is regulated by the NDUS. The primitive nature of the NDUS data network is only now being addressed by the state. Everyone in the system is aware that better systems are needed, but the solution is not yet in the hands of the end-users, VCSU campus personnel.

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