Virginia Polytechnic Institute and State University

Office of the President (0131)
210 Burruss Hall
Blacksburg, Virginia 24061

First Follow-up Report
October 1, 1999

Reaffirmation Committee Visit
March 15-18 1998

Compiled by
David Ford, Ph.D.
Vice Provost for Academic Affairs

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1.2 APPLICATION OF THE CRITERIA (Recommendation 1)

Recommendation 1: The Committee recommends that the institution report all existing or planned activities according to the policies, procedures, and guidelines of the Commission on Colleges.
Concern: The Committee found no indication that Virginia Tech has submitted reports of newly established distance learning sites or programs since notification via the annual Institutional Profile ceased in 1994.

Response 8/17/98: The University is compiling a complete listing of all degree programs being offered through its extended campus and distance learning programs, and a list of all existing and proposed distance learning sites - the only areas of procedure (of which we are aware) that has not been followed completely. These lists will fill in any missing programs and sites that have not been reported on since 1994 in the yearly Institutional Profile. The lists will be forwarded by separate correspondence after all college deans have been given an opportunity for final review.
    The Provost implemented in March 1998 a new directive specifying the creation and maintenance of a "Roster of Distance Delivered Programs." The final stage of the directive will have the Office of the Provost corresponding with the Commission on all planned "substantive changes" as outlined in the policies, procedures and guidelines of the Commission on Colleges.
Documentation: Copy of Provost's directive

Recommendation 1, 1/4/99: Confirm that notification of all new programs has been submitted to the Commission on Colleges.

Response 10/1/99: The Senior Vice President and Provost submitted a Roster of Distance and Distributed Learning Programs on November 11, 1998. The Associate Provost for Academic Administration in consultation with the Director of the Institute for Distance and Distributing Learning will submit each fall to the Commission on Colleges an updated list of planned "substantive changes" including a complete roster of distance delivered courses. Listed below are changes to the Roster since last reported. A full Roster and the annual substantive change memo accompany this document as appendices 1A and 1B.

- Engels Shipbuilding in Pascagoula, Mississippi, was added fall semester 1999 as a site for receiving ocean engineering courses, which could lead to a M.S. in Ocean Engineering. Instructional delivery methods are the same as for the other existing sites where the program is delivered – the Virginia Consortium of Engineering and Science University Center in Hampton, Virginia, the Naval Surface Warfare Center in Carterock, Maryland, and the Blacksburg campus of Virginia Tech. Student support and resources are also provided in the same manner as with the existing sites.
- The Center for European Studies and Architecture had been omitted from the original roster and is now included. Programs have been offered there since 1992.
- The College of Forestry was re-named the College of Natural Resources and appears as such on the new Roster.
- Clinch Valley College was renamed the University of Virginia at Wise and has been so modified in the roster.
- The Ph.D. in Computer Science was added as a program delivered to extended campuses (Northern Virginia Center). Previous to 1998, students had not enrolled because of residency requirements even though the program had been available at the Center since 1987 when the M.S. degree was first offered. Student support and resources are provided in the same manner as with the other extended campus sites and are equivalent to on-campus services.

- The HRD program was renamed the ALHRD (Adult Learning and Human Resource Development and is so noted on the new Roster). The M.A. and Ed.D are no longer offered.
- Educational Specialist had been omitted from the EDAD, EDCI, and EDVT degrees on the previous roster and has been added.
- EDCO and EDSE were omitted from the previous roster and are now added. Both programs were initiated pre- 1987.
- The M.A. in Hospitality & Tourism Management is no longer proposed but is now in place.
- Longwood College Continuing Education Center in Halifax/South Boston is referred to as the Halifax/South Boston Continuing Education Center and has been so modified.
- The Reynolds Homestead in Critz, Virginia was connected to Net.Work.Virginia, the broadband ATM network that the university uses to deliver distance learning courses via interactive video conferencing. The Virginia Tech site may be used as a receive site for currently delivered educational programs. It has been added to the roster.
- New contact names on certain programs have been added.

Documentation:
- Roster of Distance Delivered Programs (Appendix 1A)
- Degree Program Changes to SACS, Fall 1999 (Appendix 1B)

4.1 GENERAL REQUIREMENTS OF THE EDUCATIONAL PROGRAM (Recommendation 3)

Recommendation 3: The Committee recommends that the University ensure that the level of student achievement and quality of programs at off-campus locations is equivalent to those same programs offered on-campus.
Concern: Campus interviews and documentation provided to the Committee failed to demonstrate that sufficient evaluation is conducted to show that student learning in programs off-campus is comparable to the same programs offered on- campus.

Response 8/17/98: Since the inception of extended-campus graduate education at Virginia Tech over 25 years ago, the university has had a policy of only offering course work that is also available to on-campus students. Furthermore, the governance policies related to approval of new courses and degree programs are the same for on- and extended-campus courses. Historically, these courses have been taught on site by Virginia Tech faculty, or downlinked as interactive satellite TV courses that are being taught simultaneously to a live class. In addition, while adjunct faculty are sometimes used, reliance on adjuncts is minimal and their credentials are carefully reviewed prior to assignment to teach a course. Thus, from the perspective of course content and quality of instruction, our on- and extended-campus courses are comparable.

Student achievement at extended-campus sites has not been routinely assessed separately, and the use of systematic methodologies to compare both course quality and student achievement seems reasonable as we expand into new and diverse distance education delivery systems. With input from the Commission on Graduate Studies & Policies and others, the Graduate School and the Academic Assessment Program will work together during the 1998-99 academic year to develop an assessment plan and a strategy and timetable for its implementation. This task will be completed by the end of spring semester 1999.

Among the strategies that are being considered are those below. *For purposes of the statements below, "extended-campus" refers to all courses offered where students are located anywhere other than on the Blacksburg campus, including courses offered by television, on-line, or by other electronically assisted means.*

For each course with both on-campus and extended-campus students at the same time in the same course, the responsible faculty will:

- report student grades for both groups of students to the Graduate School, along with any explanations as to reasons for differences in overall student performance between the two groups;

- distribute and collect questionnaires regarding student satisfaction with the course and university services; share the results with the Graduate School.

For each course that does not have both on-campus and extended-campus students in it but instead has extended-campus students only, the responsible faculty will:

- require the same or similar examinations and other assignments as those offered on-campus in the same course; report to the Graduate School student grades and any explanations as to reasons for differences between those and student grades in similar, on-campus sections of the same course.

- distribute and collect questionnaires regarding student satisfaction with the course and university services; compare the results of these to results in similar on-campus sections of the same course; share the results with the Graduate School.

Annually the Vice-Provost for Research and Graduate Studies will summarize and analyze the data on extended-campus courses in a report to the Provost.

In addition, each department currently produces an assessment report to the State Council of Higher Education for Virginia (SCHEV) on a five year cycle. Among the data sources used in these reports are current student, alumni, and employer feedback. In the future, at the request of SCHEV as well as for SACS accreditation purposes, special emphasis will be placed on including data from these sources regarding extended-campus students and alumni. The last report of the MBA program did this especially well, comparing and contrasting the results from Blacksburg students versus those in northern Virginia and the eight satellite sites where classes were then being received. This can serve as a model for other programs.

Recommendation 3, 1/4/99: Complete evaluations of off-campus programs, and provide assurance that program quality and level of achievement of students are equivalent to comparable on-campus offerings.

Response 10/1/99 During 1998–1999 efforts to ensure that the level of student achievement and quality of programs for extended campus students were enhanced. A system to provide for ongoing assessment of the quality of instruction, support services and student achievement was implemented and improvements were made as necessary.

A major assessment of online courses was conducted Spring semester 1999 by an outside evaluator. A similar assessment was also conducted for the summer session and the university is awaiting the consultant's report.

Results of the Spring 1999 semester indicated satisfaction with the instruction, the teaching and learning technology, and with student services. Students responding to the survey took the online course for the following reasons.

Required course in major field	Elective to fulfill a requirement	Free elective outside major field	Required course outside major field	Free elective in major field	n/a
6.92% (36)	40.4% (210)	35.6% (185)	12.3% (64)	4.42% (23)	.38% (2)

Online students were satisfied with their access to student services including library, bookstore, student union etc. As indicated below only about 3% of the students were dissatisfied with their access to student services.

	Much Worse	Somewhat Worse	About the same	Somewhat Better	Much Better
Please rate your overall access to **student services** (library, bookstore, student union, etc.)	1.15%	2.12%	62.7%	21.5%	12.5%

Online student opinion regarding their access to specific services also showed satisfaction with these services as well.

	Strong disagree	Disagree	Neutral	Agree	Strong Agree	n/a
library resources	1.16%	5.03%	15.3%	18.6%	19.1%	40.8%
laboratory facilities	2.53%	3.89%	11.5%	10.7%	10.7%	60.7%
studio facilities	2.53%	3.51%	11.7%	6.24%	5.46%	70.6%
bursar's/student accounts office	2.14%	3.88%	9.71%	10.7%	10.3%	63.3%
registrar's office	1.76%	3.13%	10.8%	11.9%	10.6%	61.8%
bookstore	2.15%	2.34%	11.7%	17.4%	23.0%	43.4%

Only 6% of students were dissatisfied with the technology while over 40% of the online students answered that the topic of technical support did not apply to them.

28. I have had adequate **technical support** when I had questions or problems with the technology used for this course.	1.17%	5.06%	15.8%	20.2%	17.5%	40.3%

Responses to questions on the topic of "did the technology work well for the purpose of online learning" were overwhelmingly positive.

	Strongly disagree	Disagree	Agree	Strongly Agree	n/a
19. The technology used in this course did **not** work in the way it was supposed to.	53.9% (278)	31.6% (163)	8.91% (46)	5.23% (27)	.39% (2)
20. The technology used in this course was appropriate for performing the tasks required.	2.51% (13)	2.90% (15)	37.6% (195)	56.4% (292)	.58% (3)
21. The procedure for taking exams and/or quizzes in this course caused problems for me.	49.5% (257)	26.4% (137)	8.86% (46)	5.59% (29)	9.63% (50)
23. The instructor was **knowledgeable** about the technology used in this course.	1.74% (9)	4.06% (21)	32.3% (167)	54.9% (284)	6.96% (36)

Similarly, from other parts of the survey:

Because of the way this course uses the **Internet/World Wide Web:**	Strongly disagree	Disagree	Agree	Strongly Agree	n/a
45 I miss important information because the technology doesn't work correctly.	49.1% (252)	29.6% (152)	12.5% (64)	3.51% (18)	5.26% (27)

Overall students were overwhelmingly positive in their evaluation of online courses, and especially in regard to their course and their instructor. As indicated by the external evaluator, " Note that by far the largest groups answered in the most positive category, i.e., "Strongly Agree".

	Strongly disagree	Disagree	Agree	**Strongly Agree**	n/a
25. I would recommend this on-line course to others.	2.71% (12)	4.84% (25)	29.0% (150)	**62.9% (325)**	.58% (3)
26. I would recommend this instructor to others who are interested in taking an on-line course.	3.11% (16)	4.47% (23)	28.5 (147)%	**61.0% (314)**	2.91% (15)
27. I would recommend that others take a course that is entirely taught on the Internet/ World Wide Web.	2.72% (14)	7.39% (38)	36.6% (188)	**52.9% (272)**	.39% (2)

	Very Dissatisfied	Dissatisfied	Satisfied	Very Satisfied
38. Overall, regarding this course, I have been:	2.31% (14)	5.00% (26)	58.1% (302)	34.6% (180)

Below are components of the Spring Online Course Assessment Report's Executive Summary, which are illustrative of the equivalency of online courses to traditional campus-based courses.

The Online Learning Environment
Students were asked to compare the quality of student-student interaction with that of a traditional class. Although a majority (55%) felt they were less likely to work on assignments with other students, 66% said they had the same or greater likelihood of engaging in discussion with other students. Many results were mixed: 36% said they were more likely to feel isolated from other students, while 34% were neutral and 25% were less likely. The comments seemed to indicate that students (and perhaps faculty) viewed learning as a matter of independent effort for many of these courses and student-student interaction was not a necessary component. Certainly, to be effective, interaction (e.g., discussion or chats) must be designed as part of the class, and some students indicated a preference for online discussions because they provide relative anonymity for shy students and allow time for reflection before offering an opinion. In some courses, participation in discussion was required (i.e., for a grade) as a way of guaranteeing participation, but one student commented that for many of his colleagues participation was "aimed at earning points, not sharing ideas", and another simply did not want to be forced to participate if he lacked the requisite knowledge. One noted that instructor participation (i.e., as moderator and discussant) in online chats was crucial for process to be successful.

When comparing interaction with their instructor in a traditional course, student reaction was mixed. For example, when asked if they felt isolated from their instructor, the largest group (37.4%) was neutral, but 34.3% were more likely, while 24.6% were less likely to feel such isolation. However, a plurality (39%) thought they were more likely to receive detailed comments from their instructor (22.8% less likely; 34% neutral), and 35.4% were more likely to ask for clarification if they did not understand something (28.7% less likely, 32% neutral). 49% said that, because of the way the course used electronic communication, they felt more comfortable disagreeing with the instructor (21% said not applicable, 29% disagreed).

Student comments showed that under the right circumstances they could "connect" with their online instructor. From reading many of these comments, it would have been difficult to tell whether these were online or traditional classes because the students had clearly

established a positive personal relationship with their instructor; on the other hand, one student complained he felt he was "just a number" to his instructor. Clearly, the personality, style and interest of the instructor is the key to successful interaction, whether the class is online or face-to-face.

The ease of instant communication that defines these online courses can increase the day-to-day demands on faculty, and many teachers worry that students might expect them to respond instantly to an unreasonable volume of e-mail. Our poll showed that during the normal work week, 33% of students expected a reply to their message within 0-4 (33.7% within 8-24 hours). However, 67.3% expected a reply with 8-24 hours for a message sent at night (i.e., sometime the next day), while 59.3% expected a reply within 24-72 hours to e-mail sent over the weekend.

Course Design Issues

Students appeared to be quite satisfied with the design and implementation of their course. 63.2% agreed that, because of the way their course used the internet, they enjoyed studying for the course; 73.4% said they were better able to understand the course's ideas and concepts, 78.4% agreed they were more confident they could reach their academic goals, 69.4% said they put more thought into their comments, and 72.9% said they did not have difficulty keeping up with the pace of the course. As noted previously, many students liked the online environment and interaction, but some indicated that certain new methods of interaction (notably the MOO for group interaction and discussion) required some adjustment. Many students liked the idea of being in control of their own pace through the course, notably being able to read and hear lectures more than once. Some comments specifically mentioned the usefulness of being able to encounter complex information in more than one form, such as audio, text and interactive discussion.

More than one student indicated that the self-paced nature of the courses presented a temptation to procrastinate, with the risk of getting hopelessly behind. However, more than one student noted that this same online learning regimen could be viewed as an opportunity to develop self-discipline and time management skills.

Comparing Overall Attitudes

In order to simplify the analysis, scales were created that combined similar question items into more general constructs (e.g., student-student interaction, satisfaction with the technology, etc.), which were then used as variables for comparison. An analysis was performed, using t-tests and the analysis of variance, to see if students in different demographic categories reacted differently. There were no significant differences between students by gender, ethnicity or class standing. Regression analyses were also performed to determine the unique effects of sets of independent variables on major dependent variables, such as overall satisfaction, satisfaction with the technology, professor ratings, and satisfaction with the class. Analysis showed that students tended to react the same regardless of which class they were enrolled, which seemed to justify combining all students into a group.

In general, students were more likely to be satisfied with the technology when they perceived the benefits of online courses, when they rate the professor highly and when they are satisfied with the course overall. Students who rated their professor highly also were satisfied with their assignments, believed they gained from the course, were satisfied with the technology, thought that the technology facilitated student-faculty interaction and were satisfied overall with the class. Finally, overall course satisfaction is higher for those who are more satisfied with their professor, are more satisfied with the technology, and perceive more benefits of using the worldwide web.

The complete assessment report of Spring 1999 on-line courses can be found in Appendix 3A.

Students enrolled in extended-campus interactive videoconferencing (IVC) distance learning courses receive the same quality instruction as their counterparts on campus. The same instructor, using the same syllabus and the same teaching materials teaches both groups of students. A Distance Learning Course Evaluation survey is conducted each semester. The survey is based on the standard classroom-based survey with additional questions asked which pertain specifically to distance learning. This survey has been used for several years with the televised Commonwealth Graduate Engineering and MBA programs. It is now used with all IVC courses.

Table 1 presents pertinent results from the Distance Learning Course Evaluation survey. Questions 19, 20 and 22 are based on a four-point scale (poor, fair, good, excellent). Question 27 is based on a four-point scale (not helpful to extremely helpful). Questions 28 and 29 are based on a five-point scale (much below average – much above average).

Table 1

Evaluation Comparison for Interactive Videoconferencing courses
Fall 1998 - Spring 1999

	Fall ' 98			Spring '99			
	ENGR	MBA	Average	ENGR	MBA	Other	Average
19. Overall Rating of this instructor.	3.16	2.97	3.07	3.19	3.10	3.52	3.27
20. The quality of the visual reception.	2.24	2.38	2.31	2.59	2.85	2.75	2.73
21. The quality of the audio reception	2.35	2.36	2.36	2.66	2.96	2.64	2.75
22. The distribution of course handouts (especially with respect to timeliness.)	2.44	2.70	2.57	2.68	2.82	2.96	2.82
27. How helpful was the opportunity for two-way video interaction with faculty and other students.	2.28	2.73	2.51	2.53	2.67	2.77	2.66
28. Overall, how would you rate the value of this course against other courses you have taken at this level at a distance?	2.72	2.89	2.81	3.06	3.24	3.63	3.31
29. Overall, how would you rate the value of this course against other courses you have taken in a traditional classroom setting?	2.43	2.66	2.55	2.87	3.00	3.27	3.05

As indicated in Table 1 improvements can be seen in student perception of instruction from Fall 1998 to Spring 1999. Appendix 3B further indicates provides evidence of improvement. While specific reasons for the improvements have not been identified contributing factors appear to be the result of improved faculty training, increased communication with extended campus sites, network improvements and distance learning classroom improvements. These efforts were identified and initiated after on-going assessment of distance learning activities and extended campus students.

   A comparison of student achievement as measured through end of term grades found no significant difference between students enrolled in on-campus components of interactive videoconferencing distance learning courses and students enrolled at extended campus sites. The Commonwealth Graduate Engineering Program which offers Master degrees in several engineering disciplines delivers courses from the Blacksburg campus to several extended-campus sites across the state. Periodically courses are delivered from the university's Northern Virginia Center to the Blacksburg campus and other extended sites. The mean grade point average of eight master level engineering courses offered each fall semester for the past three years revealed the following:

Semester/year	On-campus	Off-campus
Fall 1996	3.37	3.18
Fall 1997	3.5	3.4
Fall 1998	3.42	3.52
total	3.43	3.37

Documentation:
Spring 1999: On-line Courses (Appendix 3A)
Interactive Video Conferencing Evaluations (Appendix 3B)

First Follow-Up Report

4.2.1 UNDERGRADUATE ADMISSION (Recommendation 4)

Recommendation 4: The Committee recommends that the institution clearly define its policy on the readmission of students dismissed or suspended for academic reasons.
Concern: The Committee found that there appears to be some misunderstanding as to what constitutes "extenuating circumstances" with regard to appeals for re-admission and other policy exceptions presented by a student's academic dean to the Academic Appeals Committee.

Response 8/1798: In past years "extenuating circumstances" usually have been related to health issues, many of which are not clear at the inception of the appeals process. The Commission on Undergraduate Studies and Policies will be instructed to review the stated policy in the fall of 1998, with the intent to make revisions as appropriate that will indicate and clarify what constitutes allowable "extenuating circumstances." An addition will also be made to the operating procedure that will ensure that the appropriate dean is contacted during this process. It is anticipated that this policy and procedural change will be completed by January 1999

Recommendation 4, 1/4/99: Complete and report on modification of admissions policies and procedures scheduled for completion in January, 1999.

Response 10/1/99: The University approved an amendment to Presidential Policy 167 stipulating that all students have the right of appeal of readmission, regardless of circumstance, to the academic appeals committee. Appeals are carried to the academic appeals committee by the Associate Dean for Instruction of the student's college. The change will be reflected in the 2000–01 undergraduate catalog.

Documentation: Policy Memorandum No. 191: Revision to Academic Eligibility Policy
Presidential Policy Memorandum 167

4.3.2 GRADUATE ADMISSION (Recommendations 6 & 7)

Recommendation 6: The Committee recommends that the university review its graduate admissions policy and publish the criteria that it uses for admission of students in each category.
Concern: The Committee found that the published criteria are not always followed, in that the Graduate School's quality credit average (QCA) requirement is sometimes waived.

Response 8/17/98: This fall semester the Chair of the Commission on Graduate Studies and Policies (CGS&P) will appoint an *ad hoc* Graduate Policies and Procedures and Course Catalog review committee. The committee will be asked to address graduate admissions policies, including the SACS recommendation and other issues related to revision of this document. The changes approved by CGS&P will be included in the next edition of the document to be published in 1999. This issue will be included in the new business to be addressed by CGS&P at its first meeting on September 16, 1998

Recommendation 7: The Committee recommends that the institution regularly evaluate its admissions policy.
Concern: The Committee found that the last review of the current graduate admissions policy was conducted during ca. 1992-93 and the current published policy for regular admissions is not followed exactly.

Response 8/17/98: Same as Recommendation 6

Recommendation 6&7, 1/4/99: Complete and report on the review of graduate admissions policies.

Response 10/1/99: During the 1998–99 fall semester the Chair of the Commission on Graduate Studies and Policies (CGS&P) appointed an *ad hoc* Graduate Policies and Procedures and Course Catalog review committee. The committee addressed graduate admissions policies, including the SACS recommendation and other issues related to revision of this document. The changes approved by CGS&P and recommended by SACS were included in the 1999–2001 edition of the *Graduate Policies and Procedures and Course Catalog*. The catalog was distributed to faculty and students in September 1999.
Documentation: 1999–2001 Graduate Policies and Procedures and Course Catalog

4.5 DISTANCE LEARNING PROGRAMS (Recommendations 8 & 9)

Recommendation 8: The Committee recommends that the institution formulate clear and explicit goals for its distance learning program.
Concern: The Committee found that explicit goals for distance learning have not yet been finalized in the strategic planning process.

Response 8/17/98: The University has been engaged in a yearlong process of developing a comprehensive programmatic and administrative strategy to deal with the rapid growth in distance and distributed learning courses and programs at Virginia Tech. To facilitate this process, the University hired a Director of Distributed Learning Systems in October 1997 to provide leadership to this effort. That process has resulted in the proposal to create the Institute for Distance and Distributed Learning. The proposed Institute has a mission, guiding principles, goals, and objectives tied to the University's Academic Agenda and the University's seven Cross-Cutting initiatives. The proposed Institute plan outlines a continuous improvement process that will insure that the distance learning program is effective. The Institute proposal also outlines an administrative organization designed to pull together, coordinate and focus Virginia Tech's expanding distance and distributed learning activities. A business plan to fund the Institute is currently in preparation.

   Discussions regarding the proposed Institute have been taking place within the University community since March 1998. Refinements to the proposed Institute plan have and continue to be made. We anticipate the Institute will be created, initial planning completed, and "clear and explicit goals" established by the beginning of Spring Semester 1999.
Documentation: Copies of the Institute proposal and the most recent summary sheet of the Institute's mission, primary objectives, and target markets.

Recommendation 9: The Committee recommends that the institution demonstrate that its distance learning programs are effective and its distance learning goals are being achieved once these goals are formulated.
Concern: The Committee found that the accomplishment of distance learning goals cannot be ascertained, given that the institution has not yet formulated these goals.
Response: An integral element already expressed and embraced by the proposed Institute for Distance and Distributed Learning's planning committee, and included in the initial drafts of the proposal to create the Institute, is an assessment program. This program, based on the continuous improvement model outlined in the proposal, will incorporate a comprehensive set of learning assessment strategies to assess the work of the Institute, the effectiveness of the distance learning program and achievement of distance learning goals. One of the key positions as identified in the organizational chart of the Institute is Associate Director for Planning and Assessment. When the Institute is established the position is targeted to be one of the first filled. The major responsibilities of the Associate Director for Planning and Assessment are to:

- coordinate the development of the University's distance and distributed learning goals and objectives with the University community
- identify and implement a comprehensive set of learning assessment strategies, as well as program and support services assessment strategies
- evaluate the results of assessment strategies
- assist faculty and support staff to incorporate assessment results into the distance learning program

While the proposed Institute plan has worked its way through the University's approval process, many of the identified goals and strategic objectives outlined in the Institute's plan have been undertaken. These goals and objectives are congruent with the University's academic agenda and are linked to one or more of the University's strategic objectives outlined in the *Update to the University Plan: 1996-2001*. Assessment of the achievement of these goals and objectives has been an integral part of these efforts. Identified below are some of the assessment activities that have already taken place, are in the process of occurring, or are planned when the activity is completed. Results of these assessment activities have been and will be used to improve the University's distance and distributed learning program.

- Assessment of faculty distance learning training efforts *(completed)*
- Assessment of the summer session Online course offerings *(analysis underway)*
- Faculty assessment of on campus and extended campus distance learning classrooms *(completed)*
- Comparison of student performance in traditional verses distance learning course *(pilot study completed)*
- Focus group discussion on student support services in distance learning courses *(completed)*
- Student satisfaction with distance learning courses *(in process)*
- Assessment of interactive videoconferencing instructional efforts *(targeted for fall semester)*
- Student assessment of regional sites *(targeted for fall semester)*

When established, the Institute, as a discrete academic entity, will be a full participant in the University's Academic Agenda planning process and held accountable for its goals, strategies, objectives and tasks. Annually, new objectives and targets will be assessed and set for the Institute and therefore the whole of the university's distance and distributed learning programs. Also annually, the Institute will report its achievements and undergo a general review (along with all other elements of the Academic Agenda).

Documentation: Copy of organizational chart of proposed Institute for Distance and Distributed Learning.

Recommendations 8 and 9, 1/4/99: Report on the goals for distance learning program scheduled for completion in Spring Semester, 1999.

Response 10/1/99, Recommendation 8: While the proposed plan to establish the Institute for Distance and Distributed Learning worked its way through the University approval process, its 1998–99 goals and objectives as outlined in the plan were being addressed. These goals and objectives were congruent with the University's Academic Agenda and were linked to the strategic objectives outlined in the *Update to the University Plan: 1996-2001.* Appendix 8A identifies the 1998–99 distance and distributed learning objectives as outlined in the *Proposal to Establish the Institute for Distance and Distributed Learning (March 1,1998).* Appendix 8B identifies the end of the year report of distance and distributed learning for the university's Strategic Direction 3.3: Outreach and Economic Development. As noted many of the accomplishments listed relate to both Strategic Direction 3.3 and Academic Agenda Strategic Direction 3.4: Information Technology. The report identifies the updated Strategy (objective), the related tasks, the assigned responsibility and the accomplishments for the year.

In Spring semester 1999 the proposed Institute for Distance and Distributed Learning was established by the Provost. The mission of the Institute is:

> *To provide leadership, coordination and support to the University's distance and distributed learning efforts, and to provide an organizational structure and network to*

> *connect learners with a system of distributed resources regardless of time and place and in support of Teaching and Learning and Research.*

This mission is congruent with the university's mission of a 21st century land-grant university and the five university aims as outlined in the *Update to the University Plan: 1996–2001.* These aims are:

- to serve a growing student population with new expectations;
- to create an atmosphere where learning can occur regardless of time and distance;
- to enable graduates to work with many different kinds of people over a lifetime;
- to generate research that addresses human concerns and anticipates future action;
- to be an active partner with learning communities of all kinds to design what is needed for future success

Five Guiding Principles for Distance Learning at the university were adapted from the American Council on Education. These principles are:

- There is no one best instructional delivery and interaction media or method.
- Media and methods are selected for their contribution to the achievement of the learning outcome in a given situation.
- A true learning community is interactive where participants have the opportunity to engage information, their teacher and their fellow students.
- All learning environments, traditional and virtual, are important to the university and will be cared for.
- A systems approach to instructional design will be modeled.
- Technology is a tool that enables distance and distributed learning to occur.

Five primary goals were developed for the Institute to address through the 1999–2000 academic year. The five goals are tied to the university's academic agenda and crosscutting initiatives. These goals are:

- Increased assessment of educational practices
- Improve communication and coordination
- Increased training, support and infrastructure
- Identification of program niches
- Explore new funding strategies/models

As a discrete academic entity the Institute for Distance and Distributed Learning was a full participant in the 1999 University Academic Agenda planning process. An example of the integration of the Institute into the university's academic agenda is provided below.

> *Strategic Direction 3.1:*
> Teaching and Learning: A Land-Grant Learning Community
> > *Strategy 3.1c:*
> > Develop teaching and learning initiatives, methodologies, and curricula to insure that they help prepare students to become effective professionals, life-long learners, and productive citizens of their society and the world.
> > > *Task3.1c.3:*
> > > Facilitate new teaching pedagogy through the integration of technology in distance and distributed learning environments.
> > > Assigned to: Vice-President of Information systems with appropriate directors, Vice-Provost for Academic Affairs, IDDL Executive Director and Director.
> > > Measure: Number of courses offered through distance and distributed learning technologies. Completed by: Continuous

Further examples can be found in Appendices 8C, 8D, 8E, 8F.

    A work plan was established by the Institute, based on the five goals, each with objectives tied to specific strategies within the Academic Agenda as outlined in the *Update to the University Plan: 1996–2001 – The Implementation Plan*. A budget was tied to each goal. (see Appendix 8G). The Institute continues to address the five goals and the tasks assigned it within the Academic Agenda.

Response 10/1/99, Recommendation 9: Documentation of the university achieving its 1998–1999 distance and distributed learning goals and objectives are outlined in the year-end report on Academic Agenda Strategic Direction 3.3: Outreach and Economic Development. An example from the report is provided below:

3.3:
Outreach and Economic Development

> 3.3b:
> Develop and deliver mission and client-oriented programming, building the institutional capacity for university expertise to rapidly respond when and where it is appropriate and adds value.
>
> > 3.3b.5:
> > Expand the use of distance and distributed technologies to deliver credit and non-credit and certificate courses and programs.
> >
> > Accomplishments:
> > - 135 credit courses delivered in a distance and distributed learning environment; a 47% increase in the number of courses delivered the previous year.
> > - 56 non-credit workshops, symposiums and conferences were delivered using distance and distributed learning technologies
> > - An estimated 5,016 students wre enrolled in credit distance and distributed learning courses
> > - 95 individuals participated in demonstrations using Net.Work.Virginia for economic development purposes
> > - bench-marked Virginia Tech's distance course and degree offerings against SCHEV identified peer institutions.
> > - Provided 15 faculty with summer course development awards to complete distance learning course development.
> > - Established Rapid Response Course Development Teams for online course development to reduce course development cycle time.

Further examples of the university achieving distance and distributed learning goals are identified in Appendix 8B. A year-end summary report of the university's 1998–99 distance and distributed learning courses and enrollments is included as Appendix 9A.

    Goal number one of the Institute's program plan is*: Increased Assessment of Educational Practices*. Six objectives are part of this goal. Status reports of the Institute's work plan were prepared May 25, 1999 and September 10, 1999. The status reports describe to date the efforts made towards each objective under each of the five goals. The September status report is attached as Appendix 9B. Objective 1.1 of Goal 1 deals with the hiring of a Planning and Assessment Coordinator to focus additional efforts on distance and distributed learning and technology supported educational practices. A national search has been conducted and interviews are in process.

During the 1998–99 year increased attention was placed on assessing the effectiveness of the university's distance learning programs and implementing efforts to improve the program. Assessment efforts were broad based and include assessing the delivery of instruction by multiple methods, student perception of instruction, faculty training, faculty assessment of distance learning classrooms and comparison of student performance as measured by grades in on-campus versus distance learning courses. Assessment methods included student surveys, faculty surveys, focus groups and grade comparisons. Results of some of the assessment efforts are provided below and as attachments.

Improvement in interactive videoconferencing courses:

Several improvements were implemented to improve the delivery of two-way interactive videoconferencing (IVC) courses. These improvements included enhanced faculty training, increased communication with extended campus sites, network improvements and distance learning classroom improvements. Based on the student Distance Learning Course Evaluation survey improvements in selected key areas based on a four point scale (inadequate, adequate-no serious problem, very good, excellent) from Fall 1998 to Spring 1999 were:

Quality of visual reception: Fall 1998 – 2.31   Spring 1999 - 2.73
Quality of audio reception: Fall 1998 – 2.36   Spring 1999 – 2.75
Distribution of course handouts: Fall 1998 – 2.57   Spring 1999 – 2.82
Overall rating of instructor: Fall 1998 – 3.07   Spring 1999 – 3.27

When asked how helpful was the opportunity for two-way video interaction with faculty and students 79.6% of the respondents rated this delivery method "reasonably helpful" to "extremely helpful" in Fall 1998 compared to 90.2% in Spring of 1999. Of these 12.4% found it extremely helpful in Fall 1998 compared to 20.8% in Spring 1999. (See attachment 3B)

Improvements in Online courses:

The effectiveness of Online courses was also measured through a comprehensive survey conducted of Spring 1999 online courses. The following is an excerpt from the report conducted by an outside evaluator.

Perceived Access to Services

Student opinion about their access to specific student services was also reassuring. This response is gratifying because some classes did require some "hands-on" experiences. For example, the largest course (Entomology 2004, "Insects and Human Society") required a traditional laboratory project in which students raised a milkweed bug from egg to maturity and kept a journal to document their results.

In this course, I have had adequate access to...:

	Strong disagree	Disagree	Neutral	Agree	Strong Agree	n/a
library resources	1.16%	5.03%	15.3%	18.6%	19.1%	40.8%
laboratory facilities	2.53%	3.89%	11.5%	10.7%	10.7%	60.7%
studio facilities	2.53%	3.51%	11.7%	6.24%	5.46%	70.6%
bursar's/student accounts office	2.14%	3.88%	9.71%	10.7%	10.3%	63.3%
registrar's office	1.76%	3.13%	10.8%	11.9%	10.6%	61.8%
bookstore	2.15%	2.34%	11.7%	17.4%	23.0%	43.4%

Receptiveness to Future Online Services

We also polled students on their receptiveness to online registration and fee payment, which are enhancements that are being considered by the administration. Most students were in favor of online registration, probably because registration has been computerized for quite some time and they have had considerable experience with it. However, students ,like the general population, had mixed reactions regarding the idea of electronic commerce: 34.6% were receptive to using their credit card to pay fees online, but almost an equal number (31.6%) were wary of this innovation.

If possible, I would prefer to...

	Strongly disagree	Disagree	Neutral	Agree	Strongly Agree	n/a
… register for on-line courses directly on the Virginia Tech web site	2.54%	6.84%	20.9%	23.0%	41.4%	5.27%
… pay tuition and fees for on-line courses by credit card on the Virginia Tech web site.	19.2%	12.4%	22.3%	11.4%	20.3%	14.3%

The complete report can be found in Appendix 3A.

Faculty training efforts were also assessed (see Appendix 9C). Responses from faculty on the usefulness of training in the development and delivery of distance learning courses ranged from 3.0 to 5.0 on a five-point scale in selected training modules. A review of the training program was conducted and improvement were made to those lower scoring modules.

Focus groups with faculty were held to identify potential improvements in distance learning classroom facilities. Improvements that have been implemented in some rooms include: video projection for larger images, table re-arrangement for more intimate discussion and microphone adjustments for improved sound.

In addition, a comparison of grades from campus-based and distance learning students indicated no significant difference in assigned grades.

Documentation:

- Strategic Plan (Overview)
- Outreach and Economic Development — 3.3, 1998–1999 Objectives and Tasks
- Strategic Direction 3.1
- Strategic Direction 3.1 matrix
- Academic Agenda Update, Strategic Direction 3.4
- Strategic Direction 3.4 matrix
- IDDL Work Plan, January 1, 1999 – June 30, 2000
- Summary of Distance and Distributed Learning Courses and Enrollments for 1998–1999
- IDDL Work Plan January 1, 1999 – June 30, 2000 Status Report
- Faculty training assessments

4.8.4 GRADUATE TEACHING ASSISTANTS (Recommendation 11)

Recommendation 11: The Committee recommends that the University take steps to ensure that graduate assistants who have primary responsibility for teaching a credit course and/or for assigning grades for such a course have earned at least 18 graduate hours in their teaching discipline.
Concern: The Committee found that some graduate teaching assistants, to whom the SACS requirement of having earned at least 18 graduate semester hours in their teaching discipline is applicable, have fewer than the required number of graduate hours.

Response 8/17/98: Compliance with the requirement that graduate assistants have 18 graduate hours in their teaching discipline will require meeting with the affected programs, primarily in Arts and Sciences and Business, to seek ways of addressing this matter. The Graduate School will contact all colleges in August 1998 to develop a list of the departments impacted by this requirement. An appropriate group will then meet with these departments early in the Fall Semester to evaluate the magnitude of the problem and to seek a solution which will be implemented by each unit no later than Fall Semester 1999.

Recommendation 11, 1/4/99: Implement and document solution to the problem of credentials of graduate teaching assistants.

Response 10/1/99: Compliance with the requirement that graduate assistants have 18 graduate hours in their teaching discipline has been addressed by meeting with the affected programs to ensure that all programs are in compliance. Each department in question has verified that they are in compliance with the SACS requirement. The Graduate School will continue to review GTA assignments annually to ensure compliance in this area.

5.1.7 LIBRARY/LEARNING RESOURCES FOR DISTANCE LEARNING ACTIVITIES (Recommendation 12)

Recommendation 12: The Committee recommends that ready and timely access to adequate library/learning resources and services be provided for all off- campus students.
Concern: Interviews with off-campus students indicated to the Committee that library materials are not always delivered in a timely manner.

Response 8/17/98: The Virginia Tech Library has initiated a new delivery system for library materials to supplement the rich body of electronic information resources already available to students registered for extended campus programs. Requests for library materials from users registered as Virginia Tech students or staff are processed within 24 hours of receipt of the request. The requested articles and/or books are sent by commercial courier to the requestor's preferred receiving address.

The new service will be explained and promoted to faculty teaching extended campus courses so that we can make sure their students are aware of the service. The service will be evaluated in fall 1998 and spring 1999, and periodically thereafter, to determine whether it is adequately meeting students' needs. If not, further resources will be allocated to address remaining problems.
Documentation: Copy of Web page - http://www.lib.vt.edu/extended/reqform.html

Recommendation 12, 1/4/99: Implement the University's new delivery system of providing access to library materials for off-campus students. Evaluate the system and document the results of the evaluation.

Response 10/1/99: A new delivery system was piloted 11/98 through 6/99. During the pilot off-campus students e-mailed requests to the Circulation department of the library, and books and copied articles were sent by priority mail or commercial courier to the requester. Figure 1 indicates the distribution of the 2,971 items sent from the Blacksburg collections to our off-campus requesters during the pilot. Several staff in the unit changed over the period of the pilot, so data capture was not as consistent as we anticipated. For example, there were requests for November, but we don't have firm data for the month, and many users had materials shipped to the Northern Virginia Center so we did not have addresses for surveying their satisfaction. In evaluating the activity level of our first year (Figure 1) we determined that the volume was such that a need to move beyond the pilot program was indicated. However, we also learned that our initial method of implementation, i.e., location within the Circulation unit, would not be the best way to meet user needs over the long term.

For this year (beginning September 99) we have moved the program into the Interlibrary Loan unit which already provides a similar service for materials not held by the Libraries. Extended campus users now have one location and one form to make a request for **any** items they want, whether the items are owned by the Virginia Tech Libraries or are held elsewhere. Software modifications to allow us to use this one site for user requests have taken several months to implement. With an automated system we have improved tracking ability to associate users with their addresses. This database of users will form the basis of a user survey to be conducted in May 2000.

Figure 1
1998/99 Responses to Extended Campus Requests
for Central Campus Library Materials
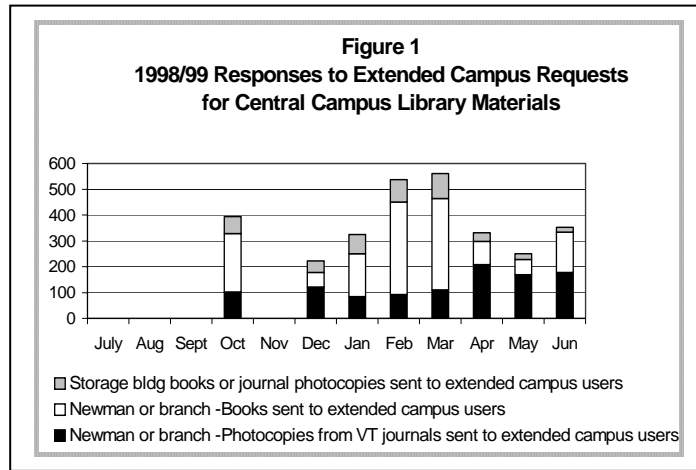
5.5.4 INTERCOLLEGIATE ATHLETICS - ACADEMIC PROGRAM (Recommendation 13)

Recommendation 13: The Committee recommends that the University annually, with faculty participation, monitor compliance of its policies pertaining to recruitment, admission, financial aid, and continuing eligibility.
Concern: The Committee found that annual monitoring of applicable written policies is not taking place.

Response 8/17/98: The self-study and discussions with institutional representatives indicate that such annual monitoring does not currently take place. The University acknowledged this concern in its August 13, 1998, response to the NCAA peer-review report and made a recommendation there to address it (see attached documentation).

At the January 21, 1998, meeting, the chair of the University Athletics Committee formed two sub-committees to implement recommendations generated as a result of the university's NCAA self-study process. The Governance and Compliance sub-committee is currently comprised of five members including the associate dean of the College of Business, a professor of Aerospace and Ocean Engineering, a representative of the Student Government Association, the assistant athletic director for compliance and the assistant athletic director for academic services. This sub-committee is charged with reviewing, on an annual basis, compliance with University policies in the areas of recruiting, admissions, financial aid, and continuing eligibility.

The sub-committee will present its findings in a written report to members of the University Athletics Committee, the University President, and the Senior Vice President and Provost no later than December 31st of each calendar year.

In addition to the Governance and Compliance sub-committee, the director of athletics requested the Atlantic 10 Conference to conduct a compliance review in the same areas. The review was completed by the assistant commissioner in May 1998, with the next review scheduled for summer 2000. Future compliance reviews will be scheduled with either the NCAA, the Big East Conference, or the Atlantic 10 Conference in order to obtain diversity in the review process.
Documentation: Copies of: Recommendation No. 1, Governance and Commitment to Rules Compliance (relating to Operating Principle No. 7), in Virginia Tech's response to peer-review report, submitted to NCAA on August 13, 1998; University Athletics Committee minutes of January 21 and April 22, 1998; correspondence from Atlantic 10 Conference regarding compliance review.

Recommendation 13, 1/4/99: Document the University's new system of annual monitoring of compliance with intercollegiate athletics policies.

Response 10/1/99: As planned, the University implemented annual monitoring of compliance with intercollegiate athletics policies. The first report generated by the University Athletics Committee is attached as Appendix 13A.
Documentation: Report by the University Committee on Athletics