Section I. Executive Summary

A. Recent Events Affecting Assessment Activities

Academic year 1998 – 1999 was one of transition at Northern Virginia Community College (NVCC). The new President arrived in July 1998 as did the new Assessment Coordinator, Associate Dean for Planning. The new Associate Dean for Planning/assessment Coordinator assumed his position in August 1998. During the year, the mission and goals of the college were revised, a new planning process was instituted, and a different approach to the evaluation of academic programs was introduced. Often such major changes in personnel, policy, and procedures induce a transitional period of inactivity as the institution adjusts to the new directions that have been set. However, because the NVCC assessment program is so strong and well developed, assessment activities continued even as major changes affecting assessment were being proposed and initiated.

B. Assessment of Occupational-/Technical Programs


Both of these the AST program review and the Music programs review used a variety of methods to assess student learning. Additionally, data from surveys of current students, faculty, and graduates was considered. The AST program review included an employer survey, and the Music program considered transfer data since many students earning the Music A.A.A. degree continue their education at a four-year institution. The goals and curricula of the programs were reviewed and revised and course content summaries updated. A resource inventory was conducted to determine the need for additional academic support services.

The Administrative Support Technology faculty assessed student learning using direct measures such as authentic assessment in capstone courses, portfolios, timed and untimed skills tests, group projects, oral presentations, document design and production assignments, and theory tests. Indirect measures included student, employer, and graduate surveys. As a result of the review, courses were revised, new courses utilizing current microcomputer software applications were added, and duplication of course content was eliminated. Concerns about the mathematical abilities of students led to a dialog with the math faculty and to a renewed emphasis on math components in the AST courses. The Curriculum Advisory Committee played an active role in the review and was valuable in helping to ensure that the curriculum of the program is current and that students are receiving the training they need to be employable in this fast-changing field. Direct measures of student learning, especially in the capstone courses, indicated that students were prepared for employment upon graduation.

The Music Program faculty also used a variety of methods to assess student learning. In addition to indirect measures including student and graduate surveys, student learning was assessed by direct measures such as quizzes on technical material, in-class performances, recitals, jury performances, music competitions, written assignments and exams, term papers, and oral presentations. To discover the "value-added" by Music History and Music Theory courses, pre- and post-testing was utilized. Roundtable discussions with area school and college music educators affirmed the appropriateness of repertoires and performance outcomes. The review revealed an increasing use of technology in music courses and a concomitant need for resources to support the program. Discussions with music faculty at George Mason University resulted in valuable collaborative initiatives that will be useful to NVCC students wishing to transfer.

The Real Estate Brokerage Certificate also completed its review in 1999. Because of a variety of circumstances, including staffing and administrative changes, the Real Estate Program review was not a strong one. However, good things can come about as a result of even a weak program review/evaluation. In this case, the Curriculum Advisory Committee was reactivated, and the Real Estate faculty is actively seeking the advice of the Advisory committee in evaluating the currency of the curriculum. The faculty is also exploring methods for directly assessing student learning. Changes in the curriculum have been made, and the Real Estate program will become stronger because of the review.

C. Assessment of General Education

The assessment of general education continues to evolve. The standardized tests used in the past yielded information in a broad sense but were not useful in yielding data that could be used for the improvement of the general education program. The next phase of the evolution was to evaluate disciplines using much the same process as was being used to review programs. Questions related to concerning students' perceptions of their general education experience at the college were added to the graduate and student surveys used in both discipline and program reviews. This approach to the assessment of general education proved more useful than the administration of standardized tests but still did not yield a coherent picture of the effectiveness of the general education program within the various majors.

The revised program/discipline review process, piloted in the 1999 semester, infuses the assessment of general education into the program/discipline review process and will be instituted for all reviews beginning in Fall 1999. This revised review process recognizes that students achieve the general education goals of the college within the context of academic programs, that program/discipline goals and general education goals often overlap, and that the assessment of general education embedded in program courses yields the most useful information for the improvement of student learning. Included in the revised guidelines is a general education audit which will yield information about which courses in the programs address general education goals and the methods used to assess the attainment of those goals is often embedded in program courses.
Additionally, the Assessment Committee examined a variety of standardized student perception surveys that might serve as proxy measures of students' attainment of general education goals and objectives. One was chosen as an instrument whose use should be encouraged in program and discipline reviews. The Committee also considered tests that would directly measure students' exit level reading, writing, math, and reasoning skills and demonstrate the "value-added" of the NVCC educational experience. Again, one was chosen and its use will be encouraged in program and discipline reviews. During this study, the Assessment Committee recognized that some of the general education objectives established by the college were vague, not stated in measurable terms, and were duplicated by the Core Computer Competencies. Furthermore, the college's mission, goals, and objectives have been revised and it was not clear that the general education objectives were still in alignment with them. A recommendation that a task force be formed to review the general education objectives will be has been forwarded to the Curriculum Committee in September 1999.

D. Special Topic: Assessment and Technology

While faculty have done a great deal to integrate technology into their teaching, much of what is known about the use of technology to enhance in teaching and learning is anecdotal or gleaned from information sources such as various college newsletters. The college has not yet made a systematic study of the influence of technology on learning. In an effort to begin formal research in this area, two projects were begun in the 1998 – 1999 year and will be continued into the next academic year.

One project was designed by faculty on one of the smaller of the five campuses to collect information about faculty use of technology on their own campus, one of the smaller of the five campuses. A survey was administered to faculty to gather information about how they faculty were responding to changes in the introduction of technology into the teaching/learning process may have engendered. While the low response rate was a disappointment, the interest aroused by the project resulted in a collaborative project with the Assessment Office to expand the research design to include the perception of faculty on the influence technology has on student learning. The project will be continued into the next academic year and will be expanded to include all five campuses.

A second project was begun with four humanities faculty who teach foreign language and ESL classes and who were interested in using the Current Student Inventory of the Flashlight ToolKit to create surveys to explore the influence of technology on learning. These projects include the following research topics:

- the effectiveness of a computer program on accent reduction
- the influence of international e-mail on oral proficiency
- the impact benefits of PowerPoint in presenting foreign language material that is easily accessible to students with varying learning styles
- the ways in which students used an expanded website in learning a foreign language

Finally, the Assessment Office made great strides in acquiring technology and training to increase the efficiency and effectiveness of assessment activities. The purchase of new software packages and a scanton machine will enable surveys to be administered electronically or on scannable forms and will reduce the reliance on the Office of Institutional Research for data analysis. These purchases Both of these packages will result in a more timely return of survey and pre- and post-testing results to faculty.

Section II. Assessment of the Majors (Occupational-Technical Programs) And General Education Within the Majors

A. Assessment Results in Occupational-Technical Program Majors Reviewed in 1999
Two degree programs, Administrative Support Technology and Music, and one certificate program, Real Estate, three occupational-technical programs completed their reviews in 1999: Administrative Support Technology A.A.S. Music A.A.A., and the Real Estate Brokerage Certificate. While the Music Program review included an evaluation of the Liberal Arts: Music Specialization A.A. degree and the Music A.A. degree, in accordance with the Assessment Report Guidelines, this section reports on the Music A.A.A. degree and the Music Recording Technology certificate. This section will also include a report on the assessment of those programs as well as the assessment of general education within the programs reviewed.

During its initial phase of assessing general education, the college relied primarily on the Semantic Differential Test of Attitudes and Values and multiple choice tests, such as the NVCC test of General Education and the Watson-Glaser Critical Thinking Appraisal. The data obtained from these instruments provided a broad picture of general education but were not found to be useful in determining the strengths and weaknesses of the general education program.

Administrative Support Technology A.A.S.

The Administrative Support Technology faculty used a variety of methods to assess student learning. The AST program includes two courses designed to provide capstone experiences. These courses encompass not only program goals and objectives but also general education goals. Direct measures of student learning in the capstone courses included authentic assessment utilizing complex, real-world business projects and portfolios. Other direct measures of student learning in AST courses included timed and untimed skills tests, group projects, presentation portfolios, document design and production, theory tests, and PowerPoint presentations.

Indirect measures of student learning conducted during the program review included current student surveys, graduate surveys, and employer surveys. Unfortunately, the response rate to the employer survey was so low the data did not prove useful for improving the curriculum or for evaluating student learning outcomes. Thus this data is not included in the chart that follows. However, the AST faculty did work closely with the Advisory Committee during the review and were able to ascertain that the graduates of the program were being prepared for the workplace. During the program review, In addition, all faculty teaching AST courses were surveyed by the review committee and a resource inventory was conducted to determine whether the AST program was adequately supported. The curriculum was examined to determine its currency and adjusted. Courses were examined for duplication of content.

The chart that follows summarizes the major findings of the program review and the actions that have been taken or will be taken. The chart also summarizes the assessment of general education goals. In the chart below, the program goal is in bold and the related general education goal is in italics. In some cases, a general education goal may be related to more than one program goal. Program goals and objectives can be found in Appendix B.

<table>
<thead>
<tr>
<th>Goal(s) assessed</th>
<th>Evaluation Method(s)</th>
<th>Findings</th>
<th>Actions taken or to be taken</th>
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<tbody>
<tr>
<td><strong>AST Goals:</strong></td>
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<tr>
<td>Gain Readiness for employment</td>
<td>Portfolios and authentic assessment (simulation of real life situations) in capstone courses</td>
<td>All students enrolled in capstone course satisfactorily completed course requirements.</td>
<td>None indicated at this time.</td>
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<tr>
<td>Enhanceement of job-related competencies.</td>
<td>Graduate Survey 1993 — 1994 (n = 36)</td>
<td>928% of the respondents indicate that their goals were attained; 727% were employed six months after graduation; 7255% indicated</td>
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<tr>
<td>General Education Goal: Develop skills to enhance life-long learning</td>
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<tr>
<td>Student Survey (n = 331)</td>
<td>that their AST degree helped them in the areas of salary increase, promotion, and/or a better job with a new employer. Of those who had a basis to judge, 97% of the respondents rated their understanding of the need to continue to learn as above average or average and 93% rated themselves as average or above average in the area of finding the information needed to stay current in the field.</td>
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<tr>
<td><strong>AST Goal:</strong> Develop proficiency in AST related skills (including proficiency in written and oral communication, n. composing, proofreading, and editing business communications)</td>
<td>Theory tests, timed and untimed skills tests, document design and production, instructor observation (correct keyboarding posture, touch typing skills), portfolios, group projects, case studies resulting in a presentation portfolio, PowerPoint presentations, document design and production, including editing, proofreading, composing business communications.</td>
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<tr>
<td><strong>General Education Goal:</strong> Demonstrate College level- communication skills.</td>
<td>High level of achievement by students in skill-based courses. In capstone courses, all students achieved a satisfactory or better rating in completing complex documents.</td>
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<tr>
<td>Graduate Survey 1993 – 1997 (n = 36)</td>
<td>On a four-point scale, the mean was 2.50 on &quot;writing effectively&quot; (college mean 2.92) and 2.78 on &quot;speaking effectively&quot; (college mean 2.89)</td>
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<tr>
<td>Student Survey (n = 331)</td>
<td>94% of the respondents who had a basis to judge rated their ability to compose written business communications as average or above average and 91% rated their ability to communicate orally as average or above average.</td>
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<td></td>
<td>Continue to monitor assessment results in light of the fact that on the 1993 – 1997 Graduate Survey, program means on means on &quot;writing effectively&quot; and &quot;speaking effectively&quot; were both below the over-all college means on the same items. The results of the 1993 – 1997 Graduate Survey were not available at the time the program was reviewed. This information has been sent to the Cluster Chair and the issue will be discussed at Cross-Campus day Fall 1999.</td>
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<tr>
<td><strong>AST Goal:</strong> Understand office procedures, systems, technology</td>
<td><strong>General Education Goal:</strong> Understand impact of science and technology; develop the skills needed to use modern technology</td>
<td>Group projects; portfolio and authentic assessment in capstone courses.</td>
<td>Most students performed satisfactorily in AST courses; all students enrolled in capstone course satisfactorily completed course requirements.</td>
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<tr>
<td><strong>Student Survey (n = 331)</strong></td>
<td><strong>Faculty Survey, Advisory Committee Meeting, Resources Inventory</strong></td>
<td>97% of the respondents who had a basis to judge rated their keyboarding and formatting abilities as average or above average.</td>
<td>Changes made in curriculum; current software purchased and introduced into courses; new microcomputer application courses added to curriculum; equipment and software upgraded through College Technology Plan.</td>
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</table>

| **AST Goal:** Develop competencies in microcomputer office applications | **General Education Goal:** Understand the impact of science and technology and develop the skills needed to use modern technology | Document design and production, case studies resulting in a presentation portfolio, theory tests, PowerPoint presentations; portfolios in capstone course. | Most students performed satisfactorily in AST courses; all students enrolled in capstone course satisfactorily completed course requirements. |  

**Graduate Survey 1993 — 1997 (n = 36)**

**Student Survey (n = 331)**

**Faculty Survey, Advisory Committee Meeting, Resources Inventory**

On a four point scale, the mean was 3.38 on “using computers” compared to the college mean of 2.60.

93% of the respondents who had a basis to judge rated their ability to use microcomputer office applications as average or above average.

Hardware and software instructional needs identified.

<table>
<thead>
<tr>
<th><strong>AST Goal:</strong> Develop problem solving and critical thinking skills</th>
<th><strong>General Education Goal:</strong> Demonstrate critical thinking skills</th>
<th>Case studies resulting in a presentation portfolio, document design and production; portfolio and authentic assessment involving complex, real-life business projects in capstone courses.</th>
<th>Most students performed satisfactorily in AST courses. All students passed capstone course requirements successfully.</th>
<th>Continue to monitor assessment results in AST courses and especially in capstone courses.</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Student Survey (n = 331)</strong></td>
<td>93% of the respondents who had a basis to judge rated their ability to solve problems and think critically as average or above average.</td>
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</table>

Changes made in curriculum; current software purchased and introduced into courses; new microcomputer application courses added to curriculum; equipment and software upgraded through College Technology Plan. |  

University of Michigan at Dearborn: College of Business Administration, School of Business Administration, Department of Management Science and Technology, AST Challenge 1998-1999.
<table>
<thead>
<tr>
<th>AST Goal: Achieve proficiency in mathematics</th>
<th>Student Survey (n = 331)</th>
<th>On a four point scale, the mean was 2.09 on &quot;understanding mathematics&quot; compared to the college mean of 2.71.</th>
<th>AST faculty have begun meeting with math faculty and have placed greater emphasis on math components in AST courses.</th>
</tr>
</thead>
<tbody>
<tr>
<td>General Education Goal: Understand, interpret, manipulate numerical data</td>
<td>Graduate Survey 1993 — 1997 (n = 36)</td>
<td>91% of the students who had a basis to judge rated their ability to perform basic mathematical operations as average or above average. However, 31% indicated that they had no basis to judge ability.</td>
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<tr>
<td></td>
<td>Student Survey (n = 331)</td>
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</tr>
<tr>
<td>AST Goal: Develop competency in oral and written communication skills; composing business communications; proof-reading and editing skills</td>
<td>Document design and production, PowerPoint presentations, portfolios</td>
<td>Most students performed satisfactorily. 94% of the respondents who had a basis to judge rated their ability to compose business communications as average or above average; 91% rated their ability to communicate orally as average or above average.</td>
<td>None indicated at this time</td>
</tr>
<tr>
<td>General Education Goal: Demonstrate college-level communication skills</td>
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<tr>
<td></td>
<td>Student Survey (n = 331)</td>
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<tr>
<td>AST Goal: Gain life-long learning skills, the ability to find information needed to stay current in field</td>
<td>Student Survey (n = 331)</td>
<td>97% of the respondents who had a basis to judge rated their understanding of the need to continue to learn as average or above average; 93% rated their ability to find information needed to stay current in the field as average or above average.</td>
<td>None indicated at this time</td>
</tr>
<tr>
<td>General Education Goal: Develop skills to enhance life-long learning</td>
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</table>

Additional findings of special interest

1. The results of the student survey indicated that that 46% of the students surveyed were taking AST courses to upgrade their work skills. With the rapidly changing technology an increasingly frequent revisions of software, students working in the field were returning to the college either on their own initiative or by the request and with the support of their employers. The AST faculty must stay abreast of changes in the field and constantly learn new software and new technology.
2. The AST Advisory Committee has played a major role in helping the AST faculty keep their program current.

3. The AST faculty must stay abreast of changes in the field and constantly learn new software and be trained on new technology. In recognition of this need, the college has provided the program with funding through its Technology Plan.

**Music A.A.A.**

The Music program review evaluated the Liberal Arts: Music Specialization The Music program review evaluated the Liberal Arts: Music specialization A.A. degree, Music A.A. degree, Music A.A. degree, and the Music A.A.A. degree including the Jazz/Popular Music specialization and the Music Recording Technology Certificate. The program review also included a number of direct measures of student learning. Assessment in performance skill courses included quizzes on technical material, in-class performances, including aspects of structured creativity and improvisation, and mid-term and final recitals. Jury performances and music competitions also provided direct measures of student learning. In ensemble courses, individual achievement was measured. The Music program review evaluated the Liberal Arts: Music Specialization A.A. degree, Music measured through participation in small group rehearsals and through each student's performance contribution in recitals and concerts. Audio and video tapes were made of these performances so that students could self-critique their work. In traditional lecture courses such as Music Theory and Music History, student learning was assessed through written exams, term papers, written performance critiques, oral presentations, and participation in group discussions. Pre- and post-testing was also used to assess student learning in these courses. In courses that combined lecture and laboratory courses, student learning was directly assessed through written assignments and examinations including analysis, composition and critical listening as well as individual performance testing in the areas of ear training, keyboard harmony, and sight singing. All music majors and minors are required to be heard in a jury performance during which the technique and repertoire being studied is reviewed.

Indirect measures to assess student learning included student surveys, graduate surveys, employer surveys, and transfer data provided by the Course-by-Course Model of Transfer Success. Unfortunately, the response rates from both the graduate and employer surveys proved too low to provide useful data and thus that data is not included in the chart. The transfer data that follows the chart must be interpreted within the significant limitations on the data set. However, roundtable discussions by NVCC music faculty with area music professionals as well as discussions with George Mason University music faculty indicate that the curriculum of the Music program does prepare students for transfer and for employment.

The chart below summarizes the major findings from the Music program review along with the general education goals which are closely related to program goals. [See Appendix B for program goals and objectives.]

<table>
<thead>
<tr>
<th>Goal(s) assessed</th>
<th>Evaluation Method(s)</th>
<th>Findings</th>
<th>Actions taken or to be taken</th>
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</thead>
<tbody>
<tr>
<td><strong>Music Goal:</strong></td>
<td>Quizzes on technical material, in-class performances, mid-term and final recital performances, jury performances, music competitions.</td>
<td>Most students performed satisfactorily</td>
<td>Most students performed satisfactorily.</td>
</tr>
<tr>
<td>Develop the ability to make music of various styles and cultures</td>
<td>Student Survey (n = 214)</td>
<td>87% of those who had a basis to judge rated their ensemble skills as average or above average; 95% rated their ability to play an instrument as average or above average; 91% rated their ability to perform a standard repertoire</td>
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</tbody>
</table>
Roundtable discussions with area school and college music conductors and teachers

as average or above average; 82% rated their improvisational skills as average or above average

Discussions were beneficial in affirming the use of commensurate repertoire and assessing performance outcomes

Roundtable discussions will continue.

**Music Goal:**
Have a working knowledge of western and world music by recognizing various styles; be familiar with major composers and their works,

**General Education Goals:**
Demonstrate College-level communication skills

Display general knowledge and historical consciousness.

| Pre and pPost-testing in MUS 221 and MUS 222. Course embedded assignment including written exams, term papers, performance critiques, oral presentations. Student Survey (n = 214) | In latest administration, pre-test scores ranged from 32% to 72%. Post-test scores ranged from 80 to 100% correct. Testing has produced similar results since 1993. 95% who had a basis to judge rated their ability to recognize music styles as average or above average; 87% rated their knowledge of major composers as average or above average; 88% rated their ability to relate music to parallel movements in art, science, philosophy, literature, and history as average or above average. 88% agreed or strongly agreed that writing helped them to learn. 96% who had a basis to judge rated their oral communication skills as average or above average; 78% agreed or strongly agreed that oral presentations help them to learn. 93% who had a basis to judge rated their reading skills as average or above average. Needs identified: classroom microcomputer units and projection equipment for use with music software and to provide access to the internet. | Findings on the pre/post tests confirmed expectations of faculty. The same tests were adopted by all campuses in springs 1998. The Music Cluster will review test results and evaluate the usefulness of the tests in providing information for improving student learning. |

| Resources inventory | | |

A variety of funding sources will be identified for purchasing the needed equipment.
<table>
<thead>
<tr>
<th><strong>Music Goal:</strong> Demonstrate an ability to listen to music both analytically and critically.</th>
<th>Quizzes on technical material, writing critiques of performances and examinations. Individual performance testing in ear-training.</th>
<th>Program review identified increasing use of technology for developing music reading and ear training skills.</th>
<th>Alternative funding sources to improve ear-training hardware and software will be sought.</th>
</tr>
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<tr>
<td><strong>Music Goal:</strong> Be able to use language of music</td>
<td>Pre- and post-testing in MUS 111 and MUS 112. Course embedded assessments including written exams, term papers, written performance critiques, oral presentations. Student survey (n = 214)</td>
<td>In latest administration, pre-test scores ranged from 2% to 20% correct answers. Post-test scores ranged from 80% to 97%. Testing has produced similar results since 1998. 88% agreed or strongly agreed that writing helped them to learn; 96% who had a basis to judge rated their oral communication skills as average or above average; 78% agreed or strongly agreed that oral presentations help them to learn.</td>
<td>Findings on the pre- and post-tests confirmed expectations of faculty. The same tests were adopted by all campuses in springspring 1998. The Music Cluster will review test results and evaluate the usefulness of the tests in providing information for improving student learning.</td>
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<tr>
<td><strong>General Education Goals:</strong> Demonstrate college-level communication skills</td>
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<tr>
<td><strong>Music Goal:</strong> Students enrolled in Music recording courses will have knowledge of an experience using the recording equipment and theory necessary to produce a professional quality recording</td>
<td>Preparing and creating master tapes using all the sound processing equipment, microphone and recorder transports available. Production of a quality recording. Student Survey (n = 214)</td>
<td>Most students performed satisfactorily. 93% of those who had a basis to judge rated their problem solving and critical thinking skills as average or above average. 80% rated their ability to use music recording equipment as average or above average. 80% rated their understanding of basic electronic theory as above average or above average.</td>
<td>Continue to monitor assessment results.</td>
</tr>
<tr>
<td><strong>General Education Goals:</strong> Demonstrate critical thinking skills</td>
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<tr>
<td><strong>Understand the impact of science and technology and develop the skills needed to use modern technology</strong></td>
<td>Consultation with Advisory Committee</td>
<td>Program is current in response to the trends and needs in the field.</td>
<td>Continue regular meetings with committee.</td>
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</tbody>
</table>
Additional note of interest: Transfer Data included in the Program Review

While not designed primarily as a transfer degree, the A.A.A. degree is nevertheless attractive to students who wish to continue their education at a four-year institution. This is the case since it includes a core of applied music courses which enable students to improve their technical skills, gain experience in performing, and build their repertoire. Additionally, NVCC offers the Music A.A. degree which is designed for transfer as well as the Liberal Arts: Music Specialization A.A. degree, both of which were evaluated in the Music Program Review. On the student survey administered during the program review, about 30% of the respondents indicated they intended to transfer. However, about 16% indicated they were in an A.A. degree program and about 13% indicated they were in Music transfer degrees (7.6% in the A.A. degree program and 5.6% in the Liberal Arts: Music Specialization program). As a result of the review, the Music faculty will be considering whether to continue the Music Specialization of the Liberal Arts degree since it does not contain that core of applied music courses music students find so valuable in maintaining and enhancing their technical skills and musicology.

The Course-by-Course Model of Transfer Success provides data from 1993 – 1997 on students from NVCC who transferred to one of six universities in Virginia included in the model. While there are significant limitations on the data that must be carefully considered, a general sense of how well courses at NVCC prepare students for subsequent success at the transfer institution may be noted in some cases. George Mason University was the only one of the six institutions at which more than ten students took a music course during 1993 – 1997 at GMU after having taken the prerequisite course at NVCC. Of the 13 students who took MUSI 113 at GMU after having taken the prerequisite course at NVCC, 61.54% successfully completed the course compared to the 53.62% "success rate" for the 69 students who took the prerequisite course at GMU. In the other courses included in the study, the number of NVCC students taking the GMU course was too small to allow any sense of how well the NVCC prerequisite course prepares students for the subsequent course at GMU.

Additional note of interest:

. Most NVCC students who transfer go to George Mason University (GMU). During the Music program review, several NVCC and GMU music faculty attended expressed an interest in attending the NVCC-GMU Articulation Workshop.Inter-institutional Articulation Committee meeting. The outcome of that meeting was very positive

1. All music majors at GMU must complete at least one teaching internship prior to graduation. The NVCC music faculty expressed an interest in having GMU music majors, especially those who attended NVCC, intern at the college.

2. One NVCC campus and GMU are using a common ear training software program. The other NVCC campuses will now try to make this program available on their campuses. GMU shared its ear training syllabus and software instructions with the NVCC music faculty.

3. NVCC faculty invited the GMU faculty to talk to students about the various music programs at GMU and about the transferability of credits.

4. NVCC faculty have been put on the GMU music department mailing list and will receive information about concerts, music scholarships, and recruitment posters.

Real Estate Brokerage Certificate

The evaluation of certificates is included in the program review of the parent degree. Certificates which are not under the umbrella of a parent degree are reviewed in much the same manner, if somewhat abbreviated, as are degree programs. The review of the Real Estate Brokerage Certificate was an especially difficult one to complete. During the course of the review, the degree was eliminated, the administration of the program went from being offered at two campuses to one, and the division chair on each campus changed several times. The faculty member responsible for completing the report left the college taking most of the data generated for the review, and the final report was never received. The remaining faculty member, the Assessment Coordinator, and the current division chair decided to reconstruct the review as best they could from what remained in their files rather than delay the review even longer by starting anew. As weak as the final result is, the review did serve to illustrate the inadvisability of
relying on a sole method of assessment, in this case the student survey. Furthermore, as a result of the review, the Real Estate faculty has begun to explore additional assessment methods. Additionally the Curriculum Advisory Committee has been reconstituted, and the faculty member will work closely with the committee to evaluate the curriculum and discuss the issues that were raised in the review. [See Appendix B for program goals and objectives.]

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<td><strong>Real Estate Goals:</strong></td>
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<tr>
<td>Real Estate Sales and Brokerage licensing examinations preparation</td>
<td>Student Survey (n = 119)</td>
<td>91% rated their understanding of different types of real estate as average or above average; 80% rated their understanding of Virginia real estate laws, title closing, and financing real estate as average or above average; 75% rated their understanding of real estate transfer as average or above average. Privacy concerns make obtaining the names of students passing the licensing exams difficult.</td>
<td>The Advisory Committee has been reconstituted and will take an active role in evaluating the Real Estate Curriculum. Some students in 200-level courses felt they had no basis to judge their knowledge in title closing (31%), transferring real estate (25%), and financing real estate (20%). Faculty will work with Advisory Committee to establish appropriate prerequisites for 200199-level courses. An effort will be made to gain student permission to obtain scores on licensing exams.</td>
</tr>
<tr>
<td>Preparation to work in fields requiring general knowledge of real estate</td>
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<tr>
<td>Become informed consumers of real estate products and services</td>
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<tr>
<td><strong>Real Estate Goal:</strong></td>
<td></td>
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<tr>
<td>Preparation to work as salespersons or brokers</td>
<td>Student Survey (n = 119)</td>
<td>73% of the students who had a basis to judge rated their ability to use the Multiple Listing Service as average or above average; 28% had no basis to judge. 89% of the students who had a basis to judge rated their ability to use other microcomputer applications as average or above average; 46% had no basis to judge.</td>
<td>Faculty will work with Advisory Committee to determine to what degree instruction on the use of the Multiple Listing Service is appropriate and how to incorporate this instruction into REA courses since there is some evidence that the MLS may be replaced by internet applications.. A section dealing with microcomputers applications will be added to the course content summary of REA 216.</td>
</tr>
<tr>
<td><strong>General Education Goal:</strong></td>
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<tr>
<td>Understand the impact of science and technology and develop the skills needed</td>
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<td>to use modern technology</td>
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<tr>
<td><strong>Real Estate Goal:</strong></td>
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<tr>
<td>Develop effective communication skills</td>
<td>Student Survey (n = 119)</td>
<td>88% of the students who had a basis to judge rated their ability to write business communications</td>
<td>Faculty will explore additional course embedded assessment methods.</td>
</tr>
</tbody>
</table>
### General Education Goal:
*Demonstrate college-level communication skills*

| as average or above average; 36% felt they had no basis to judge.
| 96% of students who had a basis to judge rated their oral communication skills as average or above average; 18% felt they had no basis to judge. |

### Real Estate Goal:
*Be effective in using numerical data*

| Student Survey (n = 119) |
| 96% of the students who had a basis to judge rated their math skills as average or above average. 9% felt they had no basis to judge. |

### General Education Goal:
*Understand, interpret, manipulate numerical data*

| Student Survey (n = 119) |
| 93% of the students who had a basis to judge rated their critical thinking skills as average or above average. Only 5% felt they had no basis to judge these skills. |

### Real Estate Goal:
*Be effective critical thinkers*

| Faculty will explore additional course embedded assessment methods. |

### General Education Goal:
*Demonstrate critical thinking skills*

| Faculty will explore additional assessment methods including course embedded assessment such as case studies. |

### Additional findings of interest:

1. Student enrollment data generated for this review indicated that almost all (92%) of the students enrolled in Real Estate courses attended part-time, and most (86%) were not program placed in Real Estate.
2. Of the 119 currently enrolled student in Real Estate courses who were surveyed for the program review, 42% were taking courses to obtain real estate licensing, 24% to upgrade work skills, and 21% for personal enrichment.
3. Only 9% of those surveyed indicated that they were taking the courses to get a job. One third of the students surveyed indicated they did not intend to earn a degree or certificate and about one half of the students indicated that they already had a college degree.

These population characteristics may account for the positive rating students gave themselves on survey items related to general education.

### C. Recent developments in the assessment of General Education

During its initial phase of assessing general education, the college relied primarily on the *Semantic Differential Test of Attitudes and Values* and on multiple choice tests such as the
The next phase in the evolution of the assessment of general education was to review general education disciplines using much the same process that was used to evaluate programs. In addition, analyses of transfer data and responses from the Graduate Survey were included in the program and discipline evaluations. Questions related to general education were added to student and employer surveys administered during program and discipline reviews. The faculty have been surveyed on three occasions to ascertain the core computer competencies that are taught in and/or expected for their courses.

General education discipline evaluation, graduate surveys, and student surveys administered during program reviews have been the mainstays of general education assessment at NVCC in the last several years. Disciplines are reviewed at least once every ten years with the evaluation process parallel to the program reviews and including an action plan. The Graduate Survey is mailed to all graduates approximately six months after graduation with two follow-up mailings done to improve the response. The response rate varies but generally is around 30 – 40%. Student surveys administered to currently enrolled students during program and discipline reviews ask students to respond to items related to the attainment of general education goals. Certain general education goals were considered to have been met as students completed required credits in general education courses.

While these assessments have provided some useful data, and curricular changes have occurred because of the discipline reviews, the information gathered has not proven to be information about general education at NVCC in a broad sense, they have not been effective in particularly useful in helping the college improve student attainment of the general education goals and objectives of the college. Nor have they addressed the issue that student attainment of the general education goals of the college is achieved within the context of academic degree programs, that program goals and general education goals may overlap, and that the assessment of general education may be most effective if it is embedded in required program courses. Under the revised program review guidelines, the assessment of general education will be infused into the evaluation of programs and the review of disciplines will continue using a parallel evaluation process.

In fallfallfall 1998, a general education audit was designed. It was piloted in the Communication Design program evaluation, which began in the springspring 1999 semester. Completing the general education audit during a program or discipline review serves three purposes: (1) it demonstrates how well the general education goals are developed through the curriculum of the program; (2) it identifies how general education goals are assessed in program-required courses or in discipline courses; and (3) it identifies those program-required courses or discipline courses that clearly and strongly support the general education goals and might serve well as general education electives.

Using a matrix for each required program course or each discipline course, the general education goals and objectives that are addressed in the course are identified along with the methods used to assess the goal or objective and the degree to which the general education goals are emphasized in the course. These audits are then used to complete a program/discipline audit yielding a visual picture that clearly indicates the courses in the program which support the general education goals, the degree to which the goal is emphasized in the program/discipline, and how the goals are assessed. The pilot project was completed with suggestions for refinement of the audit, which proved to be labor intensive. The audit will be revised and will continue to be used in program and discipline reviews beginning in fallfallfall 1999. [See Appendix B.]

During the 1998 – 1999 academic year, the Assessment Committee took as its charge to investigate alternative methods of assessing the general education goals and objectives of the college. A number of standardized student perception/satisfaction surveys were examined as possible proxy measures of students' attainment of general education goals and objectives and on the ACT College Outcomes Survey was recommended for use in program reviews. The committee also examined standardized reading, writing, math, scientific reasoning, and critical thinking reading tests and again recommended the adoption of the ACT CAAP one for use in program reviews to demonstrate students' exit level competencies in these skills. It is anticipated that the CAAP scores may be correlated with COMPASS scores in some cases to give a sense of the "value-added" of the students' educational experiences at the college. These instruments will be encouraged in all program reviews beginning in fallfallfall 1999 along with course embedded assessments.

During its examination of general education assessment instruments, the committee recognized that some of the 36 thirty-six general education objectives established by the college are vague and most are not stated in measurable terms. Confusion arose...
about the intent of the objectives, for example, whether it was the case that the college intended that every student meet every objective. Some of the objectives are duplicated by the objectives established for the new Core Computer Competencies. Finally, the college’s mission, goals, and objectives have been revised and it was not clear that the general education objectives were still in alignment with them. In September 1999, The Assessment Committee will has forwarded to the Curriculum Committee a request that a task force be formed to review and possibly revise the general education objectives.

D. How Assessment Results Have Been Used

Assessment results are used in program reviews to develop an Action Plan for the program or discipline. The Action Plan may be amended by the Curriculum Committee before being approved and forwarded to the Administrative Council which must also approve the plan. A report on the implementation of the Action Plan is given to the Curriculum Committee one year after it is approved by the Administrative Council and then again one year after that. The Implementation Reports are also forwarded to the Administrative Council. The chart below summarizes the major assessment findings and actions taken over the last two years resulting from assessment findings that were taken in 1998 and 1999.

<table>
<thead>
<tr>
<th>ASSESSMENT FINDING</th>
<th>ACTION TAKEN</th>
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<tbody>
<tr>
<td>CIS/IST/IST A.A.S.</td>
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<tr>
<td>The Curriculum Advisory Committee had become inactive.</td>
<td>The Committee has been reactivated.</td>
</tr>
<tr>
<td>Program goals needed revision to reflect current skills and knowledge base needed in the field.</td>
<td>Goals were revised and approved by the Curriculum Advisory Committee.</td>
</tr>
<tr>
<td>Some specializations had become outdated; and there was overlap among courses in the specializations.</td>
<td>All specializations were reviewed and revised.</td>
</tr>
<tr>
<td>A plan for directly assessing student achievement was needed.</td>
<td>A plan for surveying entering students and tracking them to determine whether students are achieving their educational goals has been developed.</td>
</tr>
<tr>
<td>A plan was needed for assessing general education goals.</td>
<td>The graduate survey will be reviewed annually. Employers will be surveyed and results compared to previous years’ results.</td>
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<tr>
<th>ASSESSMENT FINDING</th>
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<tr>
<td>IST graduates scored below the college average on measures of general education goals.</td>
<td>All courses were reviewed and thirteen were selected as appropriate for inclusion of general education goals. Course content summaries of these courses were reviewed and revised to ensure that they reflect the general education goals.</td>
</tr>
<tr>
<td>IST students were not demonstrating</td>
<td>All courses were reviewed and seven courses plus all</td>
</tr>
<tr>
<td>Adequate mathematical skills.</td>
<td>Programming courses will address interpreting and manipulating numerical data. Course content summaries were reviewed and revised to ensure that they reflect the inclusion of mathematical skills.</td>
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<tr>
<td>Students surveyed expressed concern about meeting course goals and objectives in courses offered in compressed formats.</td>
<td>A scheduling policy was formulated to ensure that no course will be compressed into a shorter time period than two weeks for each credit in the course.</td>
</tr>
<tr>
<td>Changing needs of local industry and the community necessitate a continual review of course content and of the degree, specializations, and certificates to ensure that workforce needs are being met.</td>
<td>The cluster reviews specializations and certificates on an annual basis. Minor changes have been made in the degree. Six new courses were added to the catalog in 1997 – 1998, and three more in 1998 – 1999, and three in 1999 – 2000. Major revisions to all programming courses were made. Microcomputer application courses are continually reviewed for currency both in the level of the expected work and in the software used.</td>
</tr>
<tr>
<td>ABLE exams for appropriate CIS/IST courses were not available.</td>
<td>The cluster identified two courses for which an ABLE exam is in demand. Both courses are pre-requisiteprerequisites for other courses for which students may reasonably be expected to have met the goals and objectives through work experience. An ABLE exam is being developed for IST 117.</td>
</tr>
<tr>
<td>Traditional courses often do not meet the professional development needs of faculty.</td>
<td>The cluster proposed a special course in Object Oriented Design and Programming for IST faculty to be offered through George Mason University. The Information Technology Committee funded the course, and twenty faculty and instructional assistants completed it.</td>
</tr>
<tr>
<td>Employers did not rate the writing and reading ability of graduates and current students as highly as the faculty would have liked.</td>
<td>The cluster explored a variety of possible reasons for the lower scores. Most of the programming courses as well as the program design course that is a pre-requisiteprerequisite for the programming courses have been revised.</td>
</tr>
<tr>
<td>Students were enrolled in inappropriate courses because they were unaware of the prerequisites.</td>
<td>Three campuses now routinely include prerequisites in the schedule of classes. Instructors announce prerequisites, explain their relevance, and include prerequisites in course syllabi.</td>
</tr>
</tbody>
</table>

**Mathematics Discipline**

| In order that students have adequate support, math labs must be well-staffed, equipped with up-to-date software, and advertised on all campuses. | Four three campuses have labs up and running; bs and the fifth has computers and is working on adequate staffing for tutorials. |
| Students were not aware of course prerequisites. | The college now has a policy of issuing one free copy of the catalog to each student. Math prerequisites are required to be listed in the Schedule of Classes. |
Since math skills are quickly forgotten without use, placement test scores should be valid for only one year.

This change in policy has been made.

Students’ reasoning skills were weak.

Many course content summaries were revised to include application problems.

Students’ estimation skills were weak.

Many course summaries were revised to include estimation of answers before calculations.

Students scored poorly on questions requiring written explanations.

Each math course is to have at least one writing exercise.

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<tr>
<th>ASSESSMENT FINDING</th>
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<tbody>
<tr>
<td><strong>English as a Second Language</strong></td>
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</table>
| Students' oral language skills needed strengthening | 1. Faculty shared successful teaching methods and techniques at an oral Communication Workshop  
2. A pronunciation lab was established on the Annandale campus so that students can now use three software programs to improve their pronunciation and for enrichment activities. The pronunciation lab at Alexandria now keeps longer hours.,  
3. A Conversation Partners Program was established at Alexandria providing students with opportunities to practice oral communication with native English speakers.  
4. ESL 008 and 009 are now offered on both the Annandale and Alexandria campuses. |
| To evaluate the overall effectiveness of the program, assessment of student achievement in non-exit level ESL courses was needed. | Criteria for writing goals at each level of ESL have been established. Work on other skill areas continues. |
| Neither exit criteria nor assessment methods were uniform across campuses. | Uniform exit criteria and assessment methods for all campuses have been established. |
| Administration procedures for placement tests varied by campus. | The COMPASS ESL placement test is being will be piloted on two campuses. Once the faculty is satisfied that the administrative problems with the placement test have been resolved and that appropriate cut-off scores and uniform administration procedures have been established, COMPASS will replace other placement tests now in use. |
| Adjunct faculty lacked computer access. | More computers have been added to improve access. |

**Student Development**
In order to fulfill the requirement of an STD course, students were taking various STD courses with differing course objectives often late in their course of studies. College policy was changed so that all first time college students will be required to take STD 100 before enrolling in their 16th semester credit at the college. All sections of STD 100 will have a common set of learning objectives: information about college resources and skills to access those resources, academic tools for success, self-management and self-responsibility skills, decision-making skills. This course will address the objectives under the general education goal that students will enhance their social and educational values.

### Sociology Discipline

<table>
<thead>
<tr>
<th>Finding</th>
<th>Action Taken</th>
</tr>
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<tbody>
<tr>
<td>Some library holdings were found to be dated.</td>
<td>Faculty on each campus are reviewing holdings. Video collection has been updated. Recent readings have been added in the areas of family, media impact, cross-cultural communication, group dynamics, methods, immigration and ethnicity, gender and cross-cultural issues.</td>
</tr>
<tr>
<td>Technology was being acquired and introduced into classrooms on an ad hoc basis but results were not shared within the cluster on a consistent basis.</td>
<td>Faculty have introduced internet assignments, statistical analyses, PowerPoint presentations, data packages, and interdisciplinary references to courses. They have shared the results of their work and offered workshops to their colleagues.</td>
</tr>
<tr>
<td>General education goals related to science and technology were minimally addressed in discipline courses.</td>
<td>An inventory of general education goals and objectives addressed in discipline courses was done. A flier was prepared for distribution. Course content summaries have been placed on-line.</td>
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### Foreign Language Discipline

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<tr>
<th>Finding</th>
<th>Action Taken</th>
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<tbody>
<tr>
<td>There was a need for a uniform method to assess oral language skills.</td>
<td>SOPI was selected as the instrument for assessing oral language skills in 202 level courses. Faculty were trained and have administered the exams. DiVACE equipment was acquired to facilitate test administration.</td>
</tr>
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### ASSESSMENT FINDING

<table>
<thead>
<tr>
<th>Finding</th>
<th>Action Taken</th>
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</thead>
<tbody>
<tr>
<td>Students must be assessed in each language and for each major goal (speaking, listening, writing, reading, culture).</td>
<td>A report based on the latest findings from the American Council on the Teaching of Foreign Languages was prepared and circulated. Faculty are reviewing various assessment instruments.</td>
</tr>
<tr>
<td>Space to support the foreign language program was found to be inadequate.</td>
<td>Classroom space and technology have been provided. Labs have been set up.</td>
</tr>
<tr>
<td>Languages Centers needed to be set up at each of four campuses.</td>
<td>As money and space became available, centers were set up on all five campuses. Three of the four campuses.</td>
</tr>
</tbody>
</table>
Section III. Special Topic: Assessment and Instructional Technology

The NVCC faculty have done a great deal to integrate technology into their teaching. Many have produced web sites to which they post syllabi, assignments, readings, and links to other relevant web sites. Some English faculty are using electronic portfolios enabling students to post multiple drafts of their work for comment from their instructor and from other students. In addition, faculty are becoming adept at using PowerPoint to present lecture materials, incorporating multi-media presentations in their teaching, and using e-mail to encourage interaction of students with faculty and with other students. However, much of what we know about the use of instructional technology at NCVV is anecdotal or is gleaned from information sources such as various college newsletters. Furthermore, we have not yet begun to assess the influence of technology on the improvement of student learning in a systematic manner. Two projects were begun in 1998 – 1999 that will allow us to begin researching the interrelationships of technology, teaching, and learning.

One project was designed to begin to collect information about faculty use of technology. The faculty who conducted this research project were interested in how faculty on their campus, one of the smaller of the five campuses, were responding to changes that the use of technology for teaching and learning might be engendering. A survey was designed to gather data on the attitudes of faculty toward technology. It was expected that the results of the survey would give an indication of how faculty felt concerning the best use of their time and energies in the acquisition of and use of technology skills. The response rate was disappointingly low. However, the interest the survey sparked among faculty, both those who responded and those who choose not to, encouraged the faculty to seek support from the Assessment Office in conducting further research. A collaborative partnership was formed, and the survey has been redesigned to gather information on faculty perception of the influence of technology on learning. The survey will be piloted on two of the five campuses in the fall 1999 semester, refined if necessary, and administered to the other three campuses in the spring semester. The survey will be available electronically or on a scannable form.

A second project involves the use of the Current Student Inventory (CSI) from the Flashlight ToolKit by four humanities faculty. Each of the faculty will use the CSI to create surveys to gather data from students about the influence the use of technology has on their learning in foreign language or ESL classes. One faculty who teaches ESL courses is interested in the effectiveness of
the use of a computer program on accent reduction. A second faculty who teaches Spanish is exploring the effect of international e-mail on oral proficiency. A third research project is being designed by a faculty who uses PowerPoint extensively in her Spanish classes. She is interested in the effectiveness of PowerPoint in presenting material that is easily accessed by students with various learning styles. The final research design was created by a faculty who teaches French and who has created an expanded Web Page which includes her syllabus, semester assignments, resources such as dictionaries, grammar help, a learning style inventory, writing assignments, a chat room, and links to cultural sites. Her project is to discover how students are using the various elements of the web site and which elements proved to be most useful in improving student learning.

A workshop was held with the four faculty to help them focus their research questions and refine their design. One faculty member was able to complete her survey and administer it to 18 students in the springspring semester as a pilot project. She will use the results to revise her survey and will administer it again in the fall semester. Even though her initial sample was small, some interesting results can be noted. For example, most students reported they had good or expert ability to send and receive voice mail (79%), create a word processed document on a computer (89%), send and receive e-mail (83%), and search for information on the Internet/World Wide Web (88%).

About half of the students reported that because of the course web page they were "much more likely" or "somewhat more likely" to actively participate in scheduled discussions about the course material (61%), ask for clarification when they didn't understand something (61%), work on assignments with other students (50%), tell the instructor when they had a complaint or suggestion about the course (56%), and discuss the ideas and concepts taught in the course with the instructor (50%). Forty-four percent indicated they would be much more likely or somewhat more likely to discuss the ideas and concepts taught in the course with others.

Finally, most students agreed or strongly agreed that because of the way the course used technology, they were better able to juggle course work with work and/or home responsibilities (79%), were more confident that they can reach their academic goals (93%), and spent more time studying (83%).

The other three faculty involved in the Flashlight project are at varying stages in the research process and were not able to complete the design of their surveys by the end of the springspring semester. Additional workshops will be held in the fall semester to assist them in completing designing and administering their surveys in the fall 1999 semester.

Finally, great strides were made in 1998 – 1999 in providing the technology and training for more effective assessment of student learning and for increasing the efficiency of assessment activities. Software was acquired that will allow faculty to create on-line surveys for use in program reviews. It is anticipated that electronic surveys will increase the response rate. Additionally, a Scantron machine and compatible software were purchased that will enable the Assessment Office to create surveys on scannable forms. The software package will also provide statistical analyses of survey results. Additional software was purchased by the Assessment Office so that statistical analyses of pre- and post-testing results can be returned quickly to faculty. These purchases will decrease the reliance of the Assessment Office on the Office of Institutional Research resulting in a more timely return of data to faculty doing program reviews or engaged in other assessment activities.

Appendix A
Description of Program Review Process and Schedule For Reviewing Programs
Northern Virginia Community College

Program Review Process

Through program/discipline reviews we at Northern Virginia Community College determine that our academic programs are effective and that our students are learning. We do this by assessing the degree to which

- students are learning the knowledge, skills, and habits of thought necessary to achieve the program/discipline goals and objectives
- the program/discipline goals derive from and support the college mission and goals, the general education goals, and the purpose of the program/discipline
- the curriculum is coherent, current and consistent
- the instruction is effective in enabling student learning
- the environment is conducive to student learning
- the resources are adequate for the production of student learning

Additionally, through the inclusion of action plans, program/discipline reviews demonstrate that assessment results will be used in the improvement of student learning within the program/discipline. Finally, program/disciplines reviews provide information essential to effective planning and budgeting as well as to process of evaluating our effectiveness as an institution.

An administrative evaluation is the first step in the review of academic programs and disciplines. After consultation with appropriate other division chairs, the coordinating division chair is responsible for completing the administrative evaluation for degrees, certificates, career studies certificates, and disciplines that have been approved for review by the Administrative Council. The administrative evaluation consists of two parts: (1) evaluation of productivity and (2) evaluation of administration.

Degree programs must meet the productivity guidelines of the State Council of Higher Education (SCHEV) and the Certificates and Career Studies programs must meet the productivity requirements set by Northern Virginia Community College. Programs that do not meet the productivity guidelines must either be recommended for discontinuation or must be further evaluated in terms of the costs and resources used to support the program.

Only after the coordinating division chair has determined that a degree program, certificate, or career studies certificate meets the productivity guidelines will the Program/Discipline Program Review Committee begin its work. The coordinating division chair may also identify productivity issues that the Program Review Committee should address in its report.

Standards for the administration of academic programs and disciplines have been developed and approved by the Curriculum Committee. The coordinating division chair, in consultation with appropriate other division chairs, is also responsible for conducting an administrative review indicating those standards which are met by the administration of the program. Standards which are not met will be examined further by the Program Evaluation Committee. The coordinating division chair may also identify administrative issues that should be addressed by the Program Review Committee.

Both the Productivity Evaluation and the Program/Discipline Administration Evaluation Checklist become a part of the report submitted to the Curriculum Committee by the Program Review Committee.

In consultation with appropriate provosts and divisions chairs, the coordinator of academic assessment and the associate dean for curriculum and enrollment services determine the membership of the review committees during the summer before the program is to begin its review in the fall. In addition to the faculty who teach in the program, each review committee includes the coordinating division chair, a counselor, and a representative from the Learning Resources Centers. Either the coordinating division chair or the coordinator of assessment calls the first organizational meeting at which a chair of the committee is elected.

All program and disciplines reviews must address the following elements of effective programs:

I. Student Learning Outcomes
• Student competencies are consistent with the purpose of the program.
• Students are achieving the goals and objectives of the program/discipline.
• Students are achieving the general education goals of the college.
• Student accomplishment is assessed through multiple means.
• Assessment results are used to improve student learning.

II. Program and Discipline Goals

• Program/discipline goals are derived from and support the mission and goals of the college.
• Program/discipline goals support the general education goals of the college.
• Program/discipline goals are consistent with expectations of businesses employing students, transfer institutions receiving students, and the needs of the community served.
• Program goals are consistent with the purpose of the program as stated in the catalogue.
• Discipline goals make explicit the contribution of the discipline to student achievement of the general education goals, the goals of programs of which it is a significant part, and/or other core competencies required of graduates.

III. Curriculum

• Program/discipline course content is consistent with the best practices in the field and the current thinking in the discipline.
• Program/discipline courses display coherence through appropriate sequencing.
• Program/discipline course content is consistent across the college and across various instructional delivery systems.
• The curriculum of the program is comprehensive in addressing program goals, general education goals, and other core competencies required by the college.
• The catalog accurately reflects the purpose and the curriculum of the program/discipline.
• The curriculum of the program/discipline is monitored through the updating of course content summaries.
• Information is sought from employers, graduates, advisory committees, and transfer institutions to assure the currency of the curriculum.

IV. Instruction

• Students experience appropriate methods of instruction that meet their learning needs.
• Instructional modalities are consistent with the best practices in pedagogy and current thinking in learning theory.
• Instructional modalities are demonstrably effective in producing student learning.
• Instructional modalities are appropriate to the purpose and goals of the program/discipline.

V. Resources

• Fiscal resources and instructional personnel are adequate.

• Instructional support is available, adequate, accessible, and appropriate.
• Classroom and laboratory space is appropriate and adequate.
• Faculty development experiences are appropriate, available, and adequate.
• Faculty participate in improvement/development activities.

VI. Learning Environment

• Students have access to program/discipline faculty after class hours for discussion and guidance.
• Students express satisfaction with the quality of their educational experience.
• Students express satisfaction with the accessibility of appropriate learning assistance services and resources.
• Students express satisfaction with the physical environment such as classrooms and labs.
• Student have access to various distance learning opportunities and instructional delivery systems such as web-based
courses, computer-based courses, and courses delivered through the Extended Learning Institute.

- Counselors work with faculty to ensure appropriate advisement.

Program review committees are encouraged to refer these elements of effective programs as they gather data to demonstrate the effectiveness of their program or discipline. Each program or discipline has its own unique characteristics. Therefore, the review process may take different approaches and the reports may look very different one from the other. However, the end result ought to be the same, a report that

- is centered on student learning outcomes
- demonstrates with appropriate supporting evidence that the program or discipline is effective
- results in an action plan to improve student learning
- produces results that are useful to faculty in improving the effectiveness of the program or discipline and to the college in its planning, budgeting, and marketing efforts

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**Program and Discipline Review Schedule, 1999 – 2005**

All degree programs along with their related certificates, career studies certificates, as well as "stand-alone" certificates, career studies certificates, and general education disciplines are reviewed according to a schedule approved by the Curriculum Committee and the Administrative Council. Degree programs, certificates, and career studies certificates are to be evaluated every five years. General Education Disciplines are to be evaluated on a ten-year cycle. The next cycle of discipline reviews will begin in 2006 with the social science discipline. Below is the program review schedule for 1999 – 2005.

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- **Accounting**
- **Administration of Justice**
- **Architecture Technology**
- **Horticulture**
- **Acquist/procure**
- **Business Info Tech**
- **Accounting**
- **Bookkeeping Certificate**
- **Air Condition/Refrigeration**
- **Fine Arts**
- **Nursing**
- **Admin Sup Tech**
- **Computer Science**
- **Bookkeeping Certificate**
- **Business Info Technology**
- **Business Administration**
- **Gerontology**
- **Patient Care Tech**
- **Am. Sign Lang.**
- **Electronics Tech**
- **Construction Technology**
- **Computer Science**
- **Business Management**
- **Human Services**
- **Pharmacy Tech**
- **Am. Sign Lang. Interpretation**
- **Engineering**
- **Early Childhood**
- **Construction Mgt. Tech.**
- **Carpentry Framing**
- **Info Systems Tech**
- **Phlebotomy**
- **Automotive Technology**
- **Engineering Tech**
- **General Studies**
Programs which are accredited by external agencies submit a modified evaluation report to the Curriculum Committee. These reports include the recommendations of the accrediting agency and an action plan based on those recommendations. The action plan is approved by the Curriculum committee and the Administrative Council. The evaluation cycle of these program is presented in the chart below.

<table>
<thead>
<tr>
<th>Program/Agency</th>
<th>Date of last Accreditation</th>
<th>Period of Accreditation</th>
<th>Next scheduled review</th>
</tr>
</thead>
<tbody>
<tr>
<td>DENTAL HYGIENE</td>
<td>1988</td>
<td>8 years</td>
<td>12/1993</td>
</tr>
<tr>
<td></td>
<td>1998</td>
<td></td>
<td>2006</td>
</tr>
<tr>
<td>DIETETICS</td>
<td>1987</td>
<td>5 years</td>
<td>March, 1993</td>
</tr>
<tr>
<td>Program</td>
<td>Approval Year</td>
<td>Approval Period</td>
<td>Next Site Visit</td>
</tr>
<tr>
<td>-------------------------------</td>
<td>---------------</td>
<td>----------------</td>
<td>-----------------</td>
</tr>
<tr>
<td>American Dietetics Association</td>
<td>1993</td>
<td>10 years</td>
<td>March, 2003</td>
</tr>
<tr>
<td><strong>EMERGENCY MEDICINE</strong></td>
<td>10/17/90</td>
<td>4 years</td>
<td>1994</td>
</tr>
<tr>
<td>AMA Committee on Allied Health Education and Accreditation in cooperation with the Joint Review Committee on Education Programs for EMT/Paramedic</td>
<td>4/17/971997</td>
<td>3 years</td>
<td>2000</td>
</tr>
<tr>
<td><strong>HEALTH INFORMATION</strong></td>
<td>10/9/91</td>
<td>8 years</td>
<td>1999</td>
</tr>
<tr>
<td>Commission on Accreditation of Allied Health Education Programs (CAAHEP), in cooperation with the Council on Accreditation and Education of the American Health Information Management Association (AHIMA)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>LEGAL ASSISTING</strong></td>
<td>1988</td>
<td>5 years</td>
<td>1993</td>
</tr>
<tr>
<td>American Bar Association</td>
<td></td>
<td></td>
<td>1999</td>
</tr>
<tr>
<td><strong>MEDICAL LABORATORY</strong></td>
<td>1985</td>
<td>7 years</td>
<td>Next site visit 9/99</td>
</tr>
<tr>
<td>National Accrediting Agency for Clinical Laboratory Sciences</td>
<td>1993</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>NURSING</strong></td>
<td>1986</td>
<td>8 years</td>
<td>2002</td>
</tr>
<tr>
<td>National League for Nursing (Commonwealth of VA., Dept. of Health Professions, Board of Nursing approval granted 7/21/98)</td>
<td>6/23/94</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>PHYSICAL THERAPIST ASSISTANT</strong></td>
<td>9/19/90</td>
<td>7 years</td>
<td>1997</td>
</tr>
<tr>
<td>Commission on Accreditation in Physical Therapy Education</td>
<td>1998</td>
<td>7 years</td>
<td>2006</td>
</tr>
<tr>
<td><strong>RADIOGRAPHY</strong></td>
<td>10/9/92</td>
<td>3 years</td>
<td>9/95</td>
</tr>
<tr>
<td>AMA Committee on Allied Health Education and Accreditation in cooperation with the Joint Review Committee on Education in Radiologic Technology</td>
<td>1995</td>
<td>5 years</td>
<td>2000</td>
</tr>
<tr>
<td><strong>RESPIRATORY THERAPY</strong></td>
<td>1991</td>
<td>5 years</td>
<td>1996</td>
</tr>
<tr>
<td>Commission on the Accreditation of Allied health Programs (CAAHEP), in cooperation with the Joint Review Committee for</td>
<td></td>
<td></td>
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</tr>
</tbody>
</table>
Respiratory Education

Progress report accepted 7/93.
Re-accreditation granted 7/21/96

VETERINARY TECHNOLOGY
American Veterinary Medical Association

11/92
Interim Report 10/98.
Full accreditation granted 12/99

2001

Appendix B

Administrative Support Technology Goals and Objectives
(revised 2/96)

Goals: The overall goals of the A.A.S. degree and certificate programs offered by Administrative Support Technology are:

1. Graduates will have the conceptual and technical skills expected of office worker
2. Students seeking a career change or who desire to augment their education for career advancement will do so.
3. Students who are new to the field and have not selected a definite area of specialization will gain personal enrichment.

Specific objectives are as follows:

Administrative Support Technology A.A.S.

Students will:
1. Be able to obtain employment in the secretarial, word processing, and administrative areas of business.
2. Enhance job-related competencies.
3. Develop proficiency in the following: keyboarding and formatting, taking dictation and transcription, proofreading and editing, and information and records management.
4. Develop an understanding of contemporary office procedures, systems, and technology.
5. Develop competencies in microcomputer office applications and in the operation of other office equipment.
6. Enhance problem solving and critical thinking skills.
7. Develop proficiencies in mathematics.
8. Develop proficiencies in written and oral communications in composing business communications.
9. Regard learning as a life-long process and consider the acquisition of new knowledge in their field as an ongoing and vital
Administrative Support Professional Specialization

Graduates will:
1. Become proficient in keyboarding and document creation, editing and proofreading, formatting, and printing at a production rate and at a standard of acceptability in business utilizing graphics and desktop publishing techniques in document creation.
2. Learn concepts of an operating system, a spreadsheet, and a database.
3. Learn concepts of data communication and concepts of manual and computer-based records management.
4. Learn concepts of directories and file management, and ASCII files.
5. Develop skills in written and oral communications.
6. Develop skills in taking dictation and transcription.
7. Develop skills in human relations and organization and time management.
8. Develop skills in using office equipment.
9. Develop skills in mail processing.
10. Develop skills in making travel and meeting arrangements.
11. Develop an understanding of accounting principles and procedures and skills in budget development and monitoring.
12. Develop skills in employment and career planning.
13. Understand the fundamentals of human resource management, administration, and supervision.
14. Develop skills in personnel selection, training, and supervision.
15. Develop office management competencies in planning, organizing, directing, and controlling functions.

Office Administration and Management Specialization

Graduates will:
1. Become proficient in keyboarding and document creation, editing and proofreading, formatting, and printing at a production rate and at a standard of acceptability in business and to utilize graphics and desktop publishing techniques in document creation.
2. Increase competencies in mathematical computations as applied to the business environment.
3. Learn concepts of an operating system, a spreadsheet, a database.
4. Learn concepts of data communication, and an understanding of the concepts of manual and computer-based records management.
5. Develop skills in written and oral communications, and an understanding of the concepts of manual and computer-based records management.
6. Develop skills in taking dictation and transcription.
7. Develop skills in human relations and organization and time management.
8. Develop skills in operating office equipment.
9. Develop skills in mail processing.
10. Develop skills in making travel and meeting arrangements.
11. Develop a knowledge of accounting principles and the accounting cycle and to develop skills in budget development and monitoring.
12. Develop skills in employment and career planning.
13. Develop office management competencies in planning, organizing, directing, and controlling functions.
14. Understand the fundamentals of human resource management, administration, and supervision.
15. Develop an understanding of business law in general and develop knowledge of contracts, personal property, and sales in particular.

Information Processing Certificate

Students will:
1. Be prepared for employment in the information processing field.
2. Increase skills if currently in the work force.
3. Use a microcomputer for keyboarding, word processing, and information and records management.
4. Enhance editing, proofreading and English composition skill

**Desktop Publishing Career Studies Certificate**

Students will:

1. Be able to obtain entry-level employment in desktop publishing.
2. Increase desktop publishing skills if currently in the work force.
3. Use a microcomputer for word processing and desktop publishing.
4. Enhance editing, proofreading, and business writing skills.

**Executive Secretary Career Studies Certificate**

Students will:

1. Be able to obtain employment as an executive secretary.
2. Increase secretarial skills if currently in the work force.
3. Enhance secretarial skills in shorthand and/or machine transcription.
4. Enhance editing, proofreading, and business writing skills.

**Information Processing Career Studies Certificate**

Students will:

1. Be able to obtain employment in information processing.
2. Increase information processing skills if currently in the work force.
3. Enhance competencies in microcomputer applications relating to word processing, spreadsheets, and database software.
4. Enhance business writing skills.

**Word Processing Career Studies Certificate**

Students will:

1. Be able to obtain employment in the word processing field.
2. Increase skills if currently in the work force.
3. Enhance competencies in microcomputer applications relating to word processing.
4. Enhance business writing skills.

**Music Program Goals and Objectives**

The music program's goals and objectives are supportive of the College's stated mission:

- to function within the total educational community in those areas assigned to it and
- to ensure that all individuals in the northern Virginia area are given an opportunity for the continuing development and extension of their skills and knowledge.

The A.A. and A.A.A. program goals and objectives include providing preparation for transfer to a four-year institution, offering
music courses as electives in other programs, and providing instruction for enrichment purposes. Students who attain an 85% mastery of program goals will possess an average proficiency. The Music Recording Technology Certificate provides an occupational/technical education. The music program goals and objectives meet the students' needs as indicated by their responses to the Program Evaluation Committee student survey.

Students who plan to obtain an A.A.A. degree, to earn a Certificate in Music Recording Technology, or to transfer to a four-year institution to complete the Baccalaureate Degree in Music, Music Education, Performance, or Composition must develop specific competencies. Students taking music as an elective or for enrichment may achieve these competencies. The competencies are embodied in the following music program goals and objectives:

1. Students will develop the ability to make music of various styles and cultures by performances, class directed studies, and creative improvisation.
   - All students will develop ensemble skills (balance, blend, intonation, style, precision) by performing in various ensembles such as chorus, madrigal singers, concert band, jazz ensembles, and orchestra.
   - Instrumental and keyboard majors will perform major and minor scales and arpeggios as well as perform standard Grade IV (or higher) literature demonstrating good tone, intonation, articulation and musicianship.
   - Vocalists will perform standard repertoire in various languages demonstrating good tone, intonation, style, diction and musicianship.
   - Jazz students, on various levels, will be able to demonstrate improvisational skills, harmonic usage applicable to instrumental and vocal performance, and employ knowledge of structure/form and stylistic distinctions idiomatic to the genre.
   - Keyboard and theory students will improvise simple accompaniments to traditional songs using basic chord progressions, execute rhythms in simple and compound meters, and sight sing notation at various degrees of difficulty.

2. Students will have a working knowledge of Western and World Music: its history, literature, forms and relationship to other arts, philosophies and sciences.

   Students will
   - recognize the characteristics of various styles in music (e.g. Medieval, Renaissance, Baroque, Classical, Romantic and Twentieth Century eras).
   - be familiar with major composers and their works ("B minor Mass" of Johann Sebastian Bach, "Le Sacre de Printemps" of Igor Stravinsky and "Concerto for Cootie" of Duke Ellington.)
   - relate music to parallel movements in art, science, philosophy, literature and history.
   - identify and describe various forms, idioms and compositional devices used in music; (i.e. ground bass, rondo form, sonata, symphony, concerto, etc.).

3. Students will demonstrate an ability to listen to music both analytically and critically.

   Students will be able to
   - identify monophonic, polyphonic and homophonic textures; Forms (phrases, periods, ABA, AB, sonata, rondo, theme and variations, minuet and trio); duple, triple and quadruple simple and compound meters; and Medieval, Renaissance, Baroque, Classical, Romantic and Twentieth Century styles.
   - make aesthetic judgments based upon their critical listening experiences

4. Students will be able to use the language of music; its notational system, terminology, harmony, melody, rhythm and form, for the interpretation, creation and analysis of music.

   Students will be able to
   - sing, play, and write major and minor scales as well as major, minor, diminished and augmented triads
   - sing, analyze and harmonize a Bach chorale styled melody containing modulations and non-harmonic tones
• analyze and utilize music from the common practice (18th century era)
• identify and utilize major trends found in twentieth century compositional techniques
• perform rhythms in both simple and compound meters.
• transcribe into notation melodies, harmonies and rhythms played for them demonstrate basic musicianship skills at the keyboard

Students of jazz will be able to relate all of the above objectives to the jazz/pop idiom.

5. Students enrolled in Music Recording Technology courses will have knowledge of an experience using the recording equipment and theory necessary to produce a professional quality recording. Students will

• have experience using pitch transposers, 8 and 16 channel recording/reproducing systems; parametric and graphic equalizers, gaited compressors and limiters, time codes and digital effects devices.
• be able to demonstrate the use of multi-machine sync recording using time code tracks, all elements of the operation of 8 and 16 channel recorder, reproducer systems and the operation and use of audio oscillators, sine and square wave generators, oscilloscopes, sound pressure measuring devices, and real time analyzers.
• be able to demonstrate a knowledge of the theory and application of basic electronic theory, cable construction/fabrication, machine calibration procedures (including head alignment, biasing and equalization), mechanical and time code editing as well as studio design (including acoustic considerations, sound wave theory and material selections).

Through practical laboratory experience students will utilize their knowledge by preparing and creating master tapes using all of the sound processing equipment, microphone and recorder transports available.

Real Estate Program Goals

Real Estate Brokerage Certificate

• Students will be prepared for the Real Estate Sales and Brokerage licensing examinations.
• Students will be prepared to work as salespersons in a real estate brokerage office or as brokers employing others.
• Students will be prepared to work in fields requiring general knowledge of real estate such as property management, mortgage brokerage, loan underwriting, and loan administration.
• Students will be informed consumers of real estate products and services.
• Students will have effective communication skills.
• Students will be effective in using numerical data.
• Students will be effective critical thinkers.

Career Studies Certificate in Real Estate Brokerage

• Students will be prepared for the Real Estate Sales and Brokerage licensing examinations.
• Students will be prepared to work as salespersons in a real estate brokerage office or as brokers employing others.
• Students will be prepared to work in fields requiring general knowledge of real estate such as property management, mortgage brokerage, loan underwriting, and loan administration.
• Students will be informed consumers of real estate products and services.

Career Studies Certificate in Real Estate Appraisal

• Students will have completed the educational requirements for the various appraisal licenses and certifications in the State of Virginia.
• Students will be prepared for employment as a real estate appraiser in an appraisal company, government agency, or lending organization.
- Students will be prepared for employment in related fields requiring a knowledge of appraisal such as loan administration, property acquisition and disposition, and loan packaging.