

**Lord Fairfax Community College (LFCC)
Assessment Manual**

An Introduction and Overview of Outcomes Assessment and Review at
Lord Fairfax Community College

Updated December 3, 2008

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Introduction

Assessment is integral at all levels of a college community, from the mission statement and marketing plan to classroom scheduling and professional development. Data based on job placement and transfer numbers, retention rates, graduation rates, and other quantitative and qualitative measures assist institutions as they remain accountable to external and internal constituents. Institutional effectiveness includes the extent that college graduates meet educational goals and the college has a strong focus on student learning. Measurement of student learning outcomes is key to academic quality.

This manual is designed to provide an introduction to learning assessment as well as to provide faculty guidance on how to use assessment of learning and program outcomes to enrich student learning. Below are relevant definitions.

Definitions

Student Learning Outcome (SLO): An SLO identifies the **measurable** knowledge, skills, behaviors, or attitudes of the learner as the result of engaging in a learning activity or program. Typically, SLOs are composed with the stem, “The student will.....”.

Course Assessment: Course assessment measures the student learning that takes place in ALL sections of the course for the entire college. It is not to be confused with assessment of instructors or employment evaluation.

Course Assessment Guides (CAG): Course Assessment Guides (designed by the assessment committee at LFCC) include SLOs, related assessment measures and the benchmark or expected outcome, results (whether or not students meet the learning benchmark), and actions based on results (a plan for improvement in future offerings of the course).

Direct Assessment Methods: Direct assessment methods give instructors measurable data to study. Some examples are written exams, oral exams, performance assessments, standardized tests, licensure exams, oral presentations, projects, demonstrations, case studies, simulations, portfolios and, juried activities with outside panels.

Indirect Assessment Methods: Indirect assessment methods provide extra information that may be used to make changes. Examples include questionnaires, interviews, focus groups, employer satisfaction studies, observations of advisory boards, and job/transfer school placement data.

Institutional Impact: Impact of the institution implies that the institution has caused a change in students. The most effective measures of institutional impact, therefore, are both periodic and longitudinal, drawn at various points throughout the curriculum, at exit or graduation, and beyond graduation.

External Validity: The extent to which findings can be validated by studies, tests, and/or measures constructed by expert educators beyond the institution. Such external evaluation offers the potential for more objectivity, more finely tuned measures, and more meaningful norms due to larger sample size.

General Education and Course Assessment

In November 2006, the Virginia Community College System (VCCS) revised their general education student learning outcomes to specify very clear student learning objectives, focus on understanding personal, social, and civic values, and develop proficiency in skills and competencies essential for all college-educated adults.

Working with faculty in their areas, program leaders at LFCC used a matrix (see Attachment 2) provided by VCCS to identify general education student learning outcomes for each of the courses in their program cluster. This made it possible to document students' exposure to general education throughout the entire curriculum and every course of study. Each course at LFCC now needs to include a minimum of **two general education outcomes, including one critical thinking outcome**. The two general education outcomes are included in the course content summary for each course, and therefore assessed on the three-year rotational cycle when each course is assessed. By January 2011, every course will have completed the full assessment cycle, and a comprehensive evaluation of student learning achievement will be conducted for each general education student learning outcome across the entire curriculum. In addition, the annual graduate student survey (first administration – July 2007) asks students to evaluate how well Lord Fairfax Community College prepared them in general education learning areas.

Program Review

Whereas course assessment focuses on the question of “how can the course be strengthened based on how well students are mastering course objectives?”, program review focuses on student learning outcomes for the program as a whole, as well as productivity measures related to the viability and effectiveness of a degree or certificate program. Every degree and certificate program is being evaluated using a 3-year cycle (see Attachment 3).

Program leaders and deans have had several training sessions from the Office of Institutional Research and Effectiveness (OIRE), now titled the Office of Planning and Institutional Effectiveness (PIE), and the Office of Learning. Under the supervision of deans, associate deans and program leaders are reviewing quantitative data produced by PIE and other data that they may obtain, for programs currently under review. Program review criteria (see Attachment 4) address multiple measures of program effectiveness and student learning.

After analyzing all the data sets and responding to the program review criteria, reports are written by the associate deans and program leaders in consultation with faculty teaching in the program. These reports will give an overall detailed picture of each program with any needed recommendations for change. These program reviews are not only important for our accreditation but they provide an important faculty perspective for any changes that need to be made in LFCC degrees and certificates.

Three-year Course Assessment Cycle

Program leaders and administrators met and voted that all courses would be evaluated every three years. The first courses in the three-year cycle of course review underwent review in spring 2007. A schedule listing all courses and when they will be assessed is attached (see Attachment 5).

Committee Tasks

An assessment committee met in Fall 2006 and identified several key tasks in the assessment process. These tasks included creating student learning outcomes, creating course assessment guides, and developing and improving course content summaries. The following tasks are detailed below.

Task #1: Creating Student Learning Outcomes

To model writing student learning objectives in a straightforward and non-threatening manner, the following chart uses levels of understanding from Bloom's Taxonomy, combines them with action verbs, and provides examples for a variety of disciplines.

Table 1: Student Learning Objectives (SLO)

If I want to measure knowledge outcomes, I might write...	The student will... <ul style="list-style-type: none"> – Describe the basic components of empirical research. – Give examples of major themes or styles in music, art, or theatre. – Recognize in complex text local, rhetorical, and metaphorical patterns.
If I want to measure comprehension outcomes, I might write...	The student will... <ul style="list-style-type: none"> – Correctly classify a variety of plant specimens. – Explain the scientific method of inquiry. – Summarize the important intellectual, historical, and cultural traditions in music, art, or theatre from the renaissance to modern times.
If I want to measure application outcomes, I might write...	The student will... <ul style="list-style-type: none"> – Demonstrate in the laboratory a working knowledge of lab safety procedures. – Apply oral communication principles in making a speech. – Compute the area of a room. – Use editing symbols and printers' marks.
If I want to measure analysis outcomes, I might write...	The student will... <ul style="list-style-type: none"> – Distinguish between primary and secondary literature. – Diagram a sentence. – Listen to others and analyze their presentations. – Differentiate between historical facts and trivia.
If I want to measure synthesis outcomes, I might write...	The student will... <ul style="list-style-type: none"> – Revise faulty copy for a news story. – Formulate hypothesis to guide a research study. – Create a poem, painting, design for a building.
If I want to measure evaluation outcomes, I might write...	The student will... <ul style="list-style-type: none"> – Compare art forms of two diverse cultures. – Critically assess an oral presentation. – State traditional and personal criteria for evaluating works of art. – Draw conclusions from experimental results.

Writing effective student learning outcomes requires that they be both precise and objective (measurable). SLO's that are vague or can't be linked to solid measurement (assessment) tools are not effective.

For instance: Look at the following four possible SLO's for a statistics class:

1. This course will teach students about statistics
2. This course will teach students about statistical tests
3. In this course, students will learn how to use statistical tests.
4. In this course, students will learn how to choose the most appropriate statistical test for a given problem.

Given that SLO #4 is the best written, let's look at the other three first.

SLO #1 is problematic for a couple of reasons. First, it's far too vague and doesn't focus in on any one skill. Second, it's not written from a *learner* perspective. Instead, it's written from the perspective of "what we will teach you", not what the student will learn from the class.

SLO #2 is also written from a teaching rather than a learner perspective. It's also too vague and is very hard to measure.

SLO #3 is getting closer to our desired goal. It presents the learner perspective and is slightly more focused.

SLO #4 is the best as it not only utilizes the learner perspective but it creates a well defined and measurable goal. SLO #4 is measurable because the wording is clear and points to a specific goal.

Once you have created your student learning outcomes, your emphasis shifts to measurement.

There are two basic categories for measuring Student Learning Outcomes: Direct and Indirect Measures.

*Whether using direct or indirect measures, it's important to think **about external validity**. As accrediting agencies are looking more at accountability, they are looking for measures that generalize to a larger population (as opposed to one class). That is why it's important that multiple sections of the same class use the same measurement tool(s).*

Direct measures are the most commonly used for course assessment. Most faculty are using some of these already. Direct measures include, but are not limited to: national standardized tests; licensing or certification exams; local content or competency exams, papers, or projects; skills tests, projects, reports, demonstrations, or performances; portfolio analysis; capstone projects, experiences, or performances.

Indirect measures may be a bit more complex and more applicable to certain fields. They are often used more to measure program or institutional outcomes rather than course outcomes. Examples of indirect measures include: surveys of students, alumni, or employers; student or graduate profiles, interviews, or focus groups.

When developing a measurement (assessment) tool for your SLO, be creative. You don't have to limit yourself to tests, papers, and projects. There are many ways to measure your outcomes.

Task #2: Completing the Course Assessment Guide (CAG)

There are several key components to the course assessment guide (see Attachment 6).

1. Student Learning Objectives: Enter your Student Learning Outcomes in the space provided (for example: “The student will write clear and concise paragraphs with strong thesis statements”)
2. Assessment Tasks: This is the task (paper, test, portfolio) that the student completes that demonstrates knowledge of the student learning outcome (e.g. student will write three paragraphs on a specific topic)
3. Measurement Tool: This is the scoring guide or rubric that **all faculty members teaching that course** will use to evaluate the assessment task.
4. Results: How did the students do on the task (e.g. 80% of all students wrote paragraphs that met all the specified requirements listed in the rubric).
5. Actions Taken: If students didn’t meet your benchmark, what is being done to improve the results? If they did, are there any additional actions that may be needed?

Table 2 Course Assessment Guide (CAG) with Question Prompts

Student Learning Outcomes	What do students need to be able to demonstrate as a result of the course? What are the course aims, stated as outcomes for student learning?
Assessment Tasks	What will students do in the course to demonstrate evidence of the outcomes? What learning is essential to the outcomes?
Measurement	How will we measure the outcomes? Measurement tools be consistent across course sections, and have external validity.
Results	What information do we have based on the tasks and measurement?
Actions Taken	What will we do differently? Are changes needed to strengthen student learning outcomes?

Task #3: Course Content Summary

Course content summaries provide a general outline for the course. They should be the basis for all syllabi. Any one course (e.g. ENG 111), regardless of the number of sections, will only have one course content summary for the entire college (see Attachment 7). The course content summary should include the following components:

1. A brief description of the course.
2. The total number of hours for the course as well as specific lecture and lab hours where appropriate.
3. The general purpose of the course and how it relates to the program of study where it is required.
4. Competencies or pre-requisites for the course.
5. Student Learning Outcomes (including General Education SLO’s)
6. An outline of the core topics to be covered.

Course content summaries include information from the Virginia Community College System (VCCS) Master Course File about the course, and, possibly required texts.

WEAVEonline

LFCC has purchased a subscription to WEAVEonline Assessment Management System. This system is a web based program designed to capture, manage, archive and track academic assessment information for regional accreditation, program review, and program improvement. With WEAVEonline, we can keep all our planning and assessment information in one place. It is easily accessible and searchable and has a number of flexible reporting features that provide quick and simple summaries of our assessment processes and data.

Appropriate personnel have been given training on how to enter assessment and other types of data into WEAVEonline. This will help the college store and report outcomes from all of our assessment projects.

Attachment 1

FAQs: Frequently Asked Questions on Course Assessment

1. How will course assessment results impact my evaluation and chance for merit pay?

They won't. In the faculty evaluation model used at LFCC there is no place for such information. The process for changing that evaluation model goes through the faculty; so any changes would have to be faculty generated.

Furthermore, the course assessment we are doing is not reported at the section level. There will be a large sample size as all course sections will be doing assessment and the information will be compiled for the course, not for individual sections.

2. Is assessment going to lead to everyone having to give only true/false or multiple choice tests?

Absolutely not; in fact, that would be strongly discouraged. Both SACS and LFCC are particularly interested in how students are achieving at the higher levels of thinking and learning. This is not to say that knowledge is not important and that some short answer tests are not appropriate. However, it is important that every class give students the chance to use and develop critical thinking skills which involve work at the comprehension, application, analysis, synthesis and evaluation level. These critical thinking skills measure whether or not students know 'how to learn' and apply their knowledge, even beyond specific course content.

It is expected that every course content summary include objectives that highlight and focus on critical thinking. LFCC's commitment to critical thinking is clear in the QEP initiative that faculty have chosen to pursue and these are the kinds of things that we wish to assess in our students. Obviously then, the majority of assessment tools cannot be short answer tests and, in fact, may not be tests at all. Portfolios of student papers and assignments, surveys filled out by students, journals that reflect thoughts on their achievements, and even assessment measures completed by students after a course is concluded are all possible assessment measures

It is important to remember also that assessment measures do not necessarily have to be counted in grading the course. A portfolio of student work does not necessarily have to be assigned a portfolio grade, and surveys and other ungraded assignments can be an important part of course assessment.

3. What if I have a largely unmotivated class? Will I be blamed for what they do not do or learn?

Again, the assessment is not going to be reported by section. There will be a large sample size drawn from all the sections of a given course. This will give an overall view of student success in terms of meeting the objectives our own faculty have set out. The assessment cycle covers three years, and some measures will not necessarily be done at the time the course is offered. For example, the VCCS does core competency testing in writing over a three year cycle and this might very well be one of the assessment measures that ENG 111 faculty chose to utilize. The results are not attached to any specific faculty member. The assessment is meant to help faculty evaluate what is successful in our courses and what needs enhancement.

4. Aren't the SLOs essentially the same thing as the SOLs that are creating havoc in the public schools?

No, actually they are quite different. The SOLs really focus on student assessment, whereas our SLOs are meant to be course assessment. The goal of the SOLs is to evaluate individual student achievement in a state imposed curriculum and determine whether they are ready to go on to the next grade. SOLs are also used to evaluate whether teachers or schools are successful in getting all their students where they need to be to proceed to the next level.

Our SLOs are of our own choosing, within the parameters of the VCCS course guide. They are the specific, measurable skills our faculty have stated they want students to achieve in a particular course. It is our job to develop assessment tools that measure these, in a way that does not hinder individual teaching styles or methods and promotes sharing of best practice and good ideas.

5. Will course assessment methods be limited to tests, papers, and portfolios?

There are at least one hundred ways to assess learning. Some of these include evaluated practicums, pictures created, products developed, presentations given, problems solved, projects completed, and procedures demonstrated.

6. What is the role of administration in course assessment?

By SACS standards, learning assessment must be faculty driven. The program leaders play an integral role in leading faculty discussion to determine how learning assessment will take place. The role of administration is to act as guides. Several administrators have been through this process as faculty members and have some experience with what works and what doesn't. Administrators may also be aware of resources that can be deployed to assist your data collection efforts, as well as plans in other disciplines that could assist your efforts, and vice-versa. Administration isn't here to give you assessment tools; we are here to answer your questions.

7. Will learning assessment help the students once they finish the class?

Yes. Course assessment activities imbedded during a course can help students by giving them various types of completed projects or skills that they can use in pursuit of employment. Since many interviewers want behavior-based answers to job interview questions, students can use their portfolios or other outcome measures to demonstrate competency to potential employers. Course assessment activities which are conducted after the course is completed may help students identify subject matter material they should review in order to improve their performance in subsequent courses, and/or bolster their confidence about how far they've come in mastering the competencies of their discipline.

8. Will course assessment result in grade inflation because faculty will feel pressured to issue high grades to make their courses look successful?

No. A sign of quality course assessment is pinpointing areas for course enhancement, based on analysis of data and faculty discussion. Course assessment data, rather than grades, will be collected and reported at the course, not the section level. We hope that faculty will candidly assess areas for course enhancement and focus on enhancement strategies in discussion with peer faculty.

9. Will dual enrollment instructors be expected to participate in course assessment?

Yes, beginning in fall 2007 like all other LFCC faculty. At LFCC's campuses, we will be piloting course assessment in spring 2007. The same assessment tool will be used in all sections of the course(s) being assessed. This includes Dual Enrollment.

10. Will course assessment result in "dumbing down" the curriculum?

Faculty will determine the answer to this question by how they design course assessment. Although higher order thinking skills may be more difficult to measure than concrete skills, it is important that we make an attempt. Quality assessment involves a commitment to strengthening course rigor to promote student learning.

11. What's the difference between Course Assessment and Student Assessment?

Course Assessment asks the question, "Overall, college-wide, do the students who complete this course achieve the objectives of the course?" Another version of this question would be, "Overall, do the students who complete this course develop the knowledge, skills, and values that the course is intended to develop?" Course assessment, as a process, determines ways that the course might be improved in order to help more students more fully achieve the intended outcomes of the course, and further to evaluate the effectiveness of changes made, again, college-wide.

Student Assessment, by contrast, asks the question, "How well is this individual student doing in achieving the objectives of the course?" Some student assessment may be formative, providing guidance to the student and the instructor on additional work needed in certain areas, while other student assessment is summative, usually for purposes of assigning a grade for the course.

12. Must data towards Course Assessment be limited to data collection at the end of the semester?

Absolutely not! In fact, some of the most valuable data can be captured in creative ways from students who completed the course being assessed during the previous semester.

For example, students who are beginning Chemistry 112 could be given a first-day-of-class assessment covering the course objectives from Chemistry 111. The CHM 112 instructor can review the results to get an idea of what the students have retained, and then pass those assessment forms to the individual responsible for collating the CHM 111 assessment data. This strategy obviously can work for any two-course required-sequence.

Finally, instructors may find that they can make arrangements with colleagues, either in their same discipline or across disciplines, to collaborate in activities for course assessment. An example of this could be in a nursing course, where it might be appropriate to include either a formative or a summative assessment of students' knowledge of infant to adolescent developmental psychology. Aggregate student performance information on this assessment could then be turned over to the psychology faculty for use in their assessment of the Developmental Psychology course.

13. How important is it to design Course Assessment processes to include students from all locations that a course is taught?

Inclusion of students from all locations that a course is taught is crucial to the process of Course Assessment. This means that if a course is taught through dual enrollment or is web-based, at both campuses, or off-site, the mechanism for gathering data for assessment of that course must be designed to *reasonably* include students regardless of the location or delivery-method of the specific section in which they were enrolled.

Therefore, if an end-of-course or beginning-of-course activity is developed for the purposes of course assessment, the activity must take place in all sections of the applicable course during the semester that data is being collected. The practical logistics of this requirement may influence some choices of such activities. It is important when designing course assessment to consider the logistics of gathering college-wide data.

Attachment 2

**Curriculum Objective Matrix
(General Education Component)
Virginia Community College System**

Program:	Courses:													
Date:														
Area 1. Communication Degree graduates will demonstrate the ability to:														
1.1 understand and interpret complex materials;														
1.2 assimilate, organize, develop, and present an idea formally and informally;														
1.3 use standard English;														
1.4 use appropriate verbal and non-verbal responses in interpersonal relations and group discussions;														
1.5 use listening skills; and														
1.6 recognize the role of culture in communication.														
Area 2: Critical Thinking Degree graduates will demonstrate the ability to:														
2.1 discriminate among degrees of credibility, accuracy, and reliability of inferences drawn from given data;														
2.2 recognize parallels, assumptions, or presuppositions in any given source of information;														
2.3 evaluate the strengths and relevance of arguments on a particular question or issue;														
2.4 weigh evidence and decide if generalizations or conclusions based on the given data are warranted;														
2.5 determine whether certain conclusions or consequences are supported by the information provided;														
2.6 use problem solving skills.														
Area 3: Cultural and Social Understanding Degree graduates will demonstrate the ability to:														
3.1 assess the impact that social institutions have on individuals and culture—past, present, and future;														
3.2 describe their own as well as others' personal ethical systems and values within social institutions; and														
3.3 recognize the impact that arts and humanities have upon individuals and cultures.														
3.4 recognize the role of language in social and cultural contexts.														
3.5 recognize the interdependence of distinctive world-wide social, economic, geo-political, and cultural systems														

**Curriculum Objective Matrix
(General Education Component)
Virginia Community College System**

Program:	Courses:																	
Date:																		
Area 4: Information Literacy. Degree graduates will demonstrate the ability to:																		
4.1 determine the nature and extent of the information needed;																		
4.2 access needed information effectively and efficiently;																		
4.3 evaluate information and its sources critically and incorporate selected information into his or her knowledge base;																		
4.4 use information effectively, individually or as a member of a group, to accomplish a specific purpose; and																		
4.5 understand many of the economic, legal, and social issues surrounding the use of information and access and use information ethically and legally.																		
Area 5: Personal Development. Degree graduates will demonstrate the ability to:																		
5.1 develop and/or refine personal wellness goals; and																		
5.2 develop and/or enhance the knowledge, skills, and understanding to make informed academic, social, personal, career, and interpersonal decisions.																		
Area 6: Quantitative Reasoning. Degree graduates will demonstrate the ability to:																		
6.1 use logical and mathematical reasoning within the context of various disciplines;																		
6.2 interpret and use mathematical formulas;																		
6.3 interpret mathematical models such as graphs, tables and schematics and draw inferences from them;																		
6.4 use graphical, symbolic, and numerical methods to analyze, organize, and interpret data;																		
6.5 estimate and consider answers to mathematical problems in order to determine reasonableness; and																		
6.6 represent mathematical information numerically, symbolically, and visually, using graphs and charts.																		
Area 7: Scientific Reasoning. Degree graduates will demonstrate the ability to:																		
7.1 generate an empirically evidenced and logical argument;																		
7.2 distinguish a scientific argument from a non-scientific argument;																		
7.3 reason by deduction, induction and analogy;																		
7.4 distinguish between causal and correlational relationships; and																		
7.5 recognize methods of inquiry that lead to scientific knowledge.																		

**Curriculum Objective Matrix
(Program Component)
Virginia Community College System**

Program:	Courses:																		
Date:																			
Program Level Objectives: Degree graduates will demonstrate the ability to:																			
1.																			
2.																			
3.																			
4.																			
5.																			

Attachment 3

**Program Review Calendar
(by semesters as of Fall 2008)**

Revised 11-3-08

Humanities, Math & Social Sciences

Fall 2007	Spring 2008	Fall 2008	Spring 2009	Fall 2009	Spring 2010	Fall 2010	Spring 2011
AA&S Education	AA&S Liberal Arts	AA&S Liberal Arts - Philosophy & Religion Specialization	AA&S General Studies	AA&S Education - 2	CSC Psychological Services Aide	AA&S Liberal Arts - 2	CSC Early Childhood Education - 2
C Fine Arts	AA&S Liberal Arts - Communications Specialization	C Technical Writing		C Fine Arts - 2	CSC Residential Services Assistant	AA&S Liberal Arts - Communications Specialization - 2	CSC Fine Arts - 2
	AA&S Liberal Arts - Fine Arts Specialization	CSC Ceramic Arts			CSC School-Age Child Care	AA&S Liberal Arts - Fine Arts Specialization - 2	CSC Police Science
	CSC Early Childhood Education	CSC Nature & Outdoor Photography			CSC Secondary Instructional Assistant		CSC Primary Instructional Assistant - 2
	CSC Fine Arts				CSC Sign Communication		
	CSC Photography						
	CSC Primary Instructional Assistant						

Business, Technology, Science & Health Professions

Fall 2007	Spring 2008	Fall 2008	Spring 2009	Fall 2009	Spring 2010	Fall 2010	Spring 2011
AA&S Science	AAS Administrative Support Technology	AAS Dental Hygiene	AA&S Business Administration	AAS Information Systems Technology - Database Administration Specialization	AAS General Engineering Technology - Civil Engineering Technology Specialization - 2	AA&S Science - 2	AAS Administrative Support Technology - 2
AAS Nursing (includes LPN Transition)	AAS Administrative Support Technology - Administrative Assistant Specialization	AAS Information Systems Technology	AAS Accounting	CSC Construction Technology	AAS General Engineering Technology - Computer-Aided Drafting Specialization - 2	CSC Drafting - 2	AAS Administrative Support Technology - Administrative Assistant Specialization - 2
AAS General Engineering Technology - Civil Engineering Technology Specialization	AAS Administrative Support Technology - Desktop Publishing Specialization	AAS Information Systems Technology - Network Engineering Specialization	AAS Management	CSC Database Administration Specialist	AAS General Engineering Technology - Industrial Electricity & Controls Technology Specialization - 2	CSC Emergency Medical Technician - Enhanced - 2	AAS Administrative Support Technology - Desktop Publishing Specialization - 2
AAS General Engineering Technology - Computer-Aided Drafting Specialization	C Graphic Design Office Assistant	AAS Information Systems Technology - Web Applications Development Specialization	AAS Management - Business Information Technology Specialization	CSC Desktop Publishing Technician	AAS General Engineering Technology - Mechanical Engineering Technology - 2	CSC General Business - 2	C Graphic Design Office Assistant - 2
AAS General Engineering Technology - Industrial Electricity & Controls Technology Specialization	C Legal Assistant/ Paralegal Studies	CSC Database Administration Professional	AAS Management - Marketing Specialization	CSC Information Processing Technician	AAS Nursing - 2 (includes LPN Transition)	CSC Information & Network Security - 2	C Legal Assistant/ Paralegal Studies - 2

Fall 2007	Spring 2008	Fall 2008	Spring 2009	Fall 2009	Spring 2010	Fall 2010	Spring 2011
AAS General Engineering Technology - Mechanical Engineering Technology	C Medical Billing/Coding	CSC Horse Science	C Electronic Commerce	CSC Web Applications Development Professional	CSC Emergency Medical Technician - Intermediate	CSC Networking Specialist - 2	C Medical Billing/Coding - 2
CSC Emergency Medical Technician - Enhanced	C Medical Secretary/Transcription	CSC HVAC	CSC Electrical Technician	C Surgical Technology	CSC Kitchen and Bath	CSC Phlebotomy	C Practical Nursing - 2
CSC General Business	C Office Systems Assistant	CSC Industrial Maintenance Mechanic	CSC Industrial Design		CSC Real Estate	CSC Web Design Specialist - 2	C Medical Secretary/Transcription - 2
	C Practical Nursing	CSC Interior Design	CSC Sales Management & Marketing				C Office Systems Assistant - 2
	CSC Drafting	CSC Networking Engineering Professional	CSC Small Business Management				CSC Veterinary Assisting - 2
	CSC Emergency Medical Technician - Intermediate		CSC Supervision				
	CSC Information & Network Security						
	CSC Networking Specialist						
	CSC Veterinary Assisting						
	CSC Web Design Specialist						

AA&S - lead to an associate of arts and sciences degree; intended to prepare students for transfer to four-year baccalaureate programs

AAS - career-technical programs intended to prepare students for specific occupations; following completion of these programs, students may choose to enter the work force or pursue additional education or training programs

C - defined as a curriculum that consists of a minimum of 30 semester credit hours; a minimum of 15% shall be in general education and must include one (1) three (3) credit hour English class

CSC - defined as a program of study of not less than 9 nor more than 29 semester credit hours; not required to include general education

Attachment 4

PROGRAM REVIEW CRITERIA

For each of the criteria listed below, the program review team shall examine appropriate program data, identify and articulate projected future trends (three years), and recommend, as appropriate, actions to strengthen the program.

1. Reviewing completed assessments for program-specific courses, and address implications of the assessments for the program as a whole.
2. Provide and evaluate evidence of attainment of program and student learning outcomes for the program as a whole. Analyze the implications of the results for future actions and changes.
3. Comment on the program's overall enrollment trend for the past three years. Based on this data, project program enrollment over the next three years.
4. Identify the major factors that you believe are contributing to a) the past and b) the projected three-year enrollment trend.
5. Using Virginia Community College (VCCS) academic program productivity data, comment on the program's productivity trend over the past three years (productivity is defined as FTE generated by programs compared to the standard level set by VCCS).
6. Analyzing productivity information over the past three years, comment on the need (if any) for additional full-time staffing. What gains or improvements would be expected?
7. If the full program is offered at multiple locations, address any program challenges and opportunities by site.
8. Comment on the trend in program graduates (degree and/or certificate) over the past three years, as well as the graduation rate (annual program graduates divided by program FTES). Is the graduation rate significantly higher or lower than the LFCC average?
9. Comment on the program's three-year trend in retention rate (for a given fall semester, number of students enrolled with prior LFCC enrollment in the program divided by total number of students enrolled in the program).
10. Using data from items 3, 5, 6, 8 and 9 above, compare the program's performance to average program performance at LFCC.
11. Identify any major factors that you believe contribute to either improving or declining trends in the program's graduation rates and/or retention rates.
12. Identify the general education or support discipline/course areas (e.g., ENG, MTH, PSY, etc.) most impacted by changes in this program's enrollment, and based on current program enrollment trends, comment on any likely future enrollment trends in these disciplines/courses.
13. For career programs: Using local, state and national labor market forecasts, as well as input from the relevant curriculum advisory council, address future job opportunities for graduates, as well as any implications of labor market changes for changes in the program curriculum.

14. For transfer programs: Using available data, identify the transfer success of program graduates and any implications of the data for program re-orientation.
15. Program-specific question provided by Vice President of Learning and Dean.
16. Program-specific question provided by program faculty.
17. Based on the preceding analysis, develop a brief statement encompassing the following: a) the program's likely vitality and viability over the next 3 years; b) areas of weakness and/or concern; c) strategies for strengthening the program.

8/07/08

Attachment 5

Course Assessment Calendar by Semester
(Alphabetically by course prefix)

Revised 11-18-08

Spr 2007	Sum 2007	Fall 2007	Spr 2008	Sum 2008	Fall 2008	Spr 2009	Sum 2009	Fall 2009	Spr 2010	Fall 2010	Spr 2011	Fall 2011
	ACC 215	ACC 211 ACC 221	ACC 212 ACC 222 ACC 298		ACC 261	ACC 225 ACC 231 ACC 262						
ADJ 237						ADJ 211		ADJ 107 ADJ 212	ADJ 133 ADJ 247			
AGR 126												
					ARC 130	ARC 133						
ART 102 ART 122		ART 101 ART 121 ART 131 ART 153 ART 283	ART 132 ART 287			ART 106* (or ART 111) ART 154 ART 284		ART 241	ART 242	ART 100		
			ASL 102					ASL 101 ASL 201				
AST 142 AST 244	AST 101 AST 102 AST 141	AST 243 AST 253 AST 257	AST 205 AST 206 AST 230 AST 234 AST 245 AST 254 AST 260	AST 100 AST 135	AST 107		AST 232 AST 236					
									AUT 265			
		BIO 141	BIO 142		BIO 100 BIO 101	BIO 102 BIO 110 BIO 162 BIO 270		BIO 107 BIO 115 BIO 150 BIO 161				

Spr 2007	Sum 2007	Fall 2007	Spr 2008	Sum 2008	Fall 2008	Spr 2009	Sum 2009	Fall 2009	Spr 2010	Fall 2010	Spr 2011	Fall 2011
BUS 100 BUS 111			BUS 165 BUS 200		BUS 236 BUS 241	BUS 205 BUS 226 BUS 242 BUS 285		BUS 147				
									CHD 120 CHD 125			
		CHM 101	CHM 102 CHM 110		CHM 111	CHM 112		CHM 241	CHM 242			
				CSC 155				CSC 201	CSC 202			
DNH 120 DNH 141		DNH 111 DNH 142	DNH 115 DNH 145 DNH 190		DNH 130 DNH 150 DNH 214 DNH 216	DNH 226 DNH 227 DNH 230 DNH 245		DNH 244				
						DRF 233		DRF 232		DRF 241		
		ECO 201	ECO 120 ECO 202									
EDU 200					EDU 254			EDU 235				
					EGR 105 EGR 135	EGR 110 EGR 136 EGR 247		EGR 206	EGR 123			
					ELE 134 ELE 133 ELE 135	ELE 137 ELE 156 ELE 159 ELE 239		ELE 126				
EMS 170		EMS 153 EMS 155	EMS 157 EMS 159 EMS 172 EMS 173			EMS 151						

Spr 2007	Sum 2007	Fall 2007	Spr 2008	Sum 2008	Fall 2008	Spr 2009	Sum 2009	Fall 2009	Spr 2010	Fall 2010	Spr 2011	Fall 2011
ENG 1 ENG 4		ENG 111 ENG 115	ENG 112 ENG 120		ENG 211 ENG 241 ENG 243 ENG 251	ENG 205 ENG 212 ENG 242 ENG 244 ENG 252 ENG 262		ENG 210 ENG 261 ENG 280	ENG 245			
									ESL 7			
									ETR 167			
						FIN 107 FIN 215						
						FOR 135		FOR 136				
					FRE 101	FRE 102		FRE 111 FRE 112	FRE 233 FRE 234	FRE 201	FRE 202	
					GEO 220	GEO 210						
								GIS 200	GIS 201			
			GOL 106		GOL 105							
		HIS 111 HIS 121	HIS 112 HIS 122			HIS 276						
HIT 253 HIT 254	HIT 111 HIT 112					HIT 143						
		HLT 106			HLT 100 HLT 115 HLT 130(N) HLT 160	HLT 116 HLT 143 HLT 215 HLT 230		HLT 130(PNE)	HLT 140 HLT 144			
					HUM 201	HUM 241		HUM 260				

Spr 2007	Sum 2007	Fall 2007	Spr 2008	Sum 2008	Fall 2008	Spr 2009	Sum 2009	Fall 2009	Spr 2010	Fall 2010	Spr 2011	Fall 2011
					IDS 100 IDS 105 IDS 116 IDS 122 IDS 206	IDS 106 IDS 205 IDS 217 IDS 225	IDS 245 IDS 297					
								INT 130				
		ITD 112 ITD 130			ITD 134	ITD 132		ITD 110 ITD 220	ITD 210			
				ITE 115					ITE 120			
		ITN 109 ITN 200	ITN 106 ITN 107 ITN 201		ITN 260	ITN 170			ITN 224 ITN 261 ITN 262 ITN 263			
ITP 251			ITP 100		ITP 112			ITP 120	ITP 225			
		LGL 117 LGL 218	LGL 200 LGL 225	LGL 125 LGL 230	LGL 115 LGL 126 LGL 235			LGL 110 LGL 130				
					MDL 105	MDL 106						
								MEC 113				
		MKT 100				MKT 228 MKT 229 MKT 282	MKT 271					

Spr 2007	Sum 2007	Fall 2007	Spr 2008	Sum 2008	Fall 2008	Spr 2009	Sum 2009	Fall 2009	Spr 2010	Fall 2010	Spr 2011	Fall 2011
MTH 3 MTH 174		MTH 4** MTH 163	MTH 164 MTH 272 MTH 285		MTH 2* MTH 115 MTH 120 MTH 151 MTH 213	MTH 116 MTH 126 MTH 152 MTH 176 MTH 214 MTH 271		MTH 103 MTH 173 MTH 240 MTH 241 MTH 242 MTH 275 MTH 277				
					MUS 121	MUS 122 MUS 149		MUS 111	MUS 112			
NUR 108 NUR 255		NUR 100 NUR 105 NUR 115 NUR 180	NUR 136		NUR 221	NUR 203 NUR 222		NUR 27 NUR 226	NUR 254			
						PBS 116		PBS 105				
		PED 111 PED 135	PED 107		PED 116 PED 117	PED 133 PED 187		PED 167				
		PHI 100	PHI 220									
		PHT 107	PHT 102		PHT 101			PHT 202		PHT 135		
PHY 202		PHY 201	PHY 102		PHY 101	PHY 242		PHY 241				
					PLS 135 PLS 211	PLS 212			PLS 241			
PNE 135		PNE 161	PNE 162	PNE 164	PNE 174		PNE 145 PNE 158					
PSY 205 PSY 230		PSY 200			PSY 236	PSY 215 PSY 235		PSY 216				
			REL 100		REL 230 REL 255	REL 210 REL 215						
			SDV's								SDV's	

Spr 2007	Sum 2007	Fall 2007	Spr 2008	Sum 2008	Fall 2008	Spr 2009	Sum 2009	Fall 2009	Spr 2010	Fall 2010	Spr 2011	Fall 2011
SOC 200		SOC 215										
SPA 202		SPA 101	SPA 102		SPA 111	SPA 112 SPA 211 SPA 212		SPA 201 SPA 233	SPA 202 SPA 234			
SPD 100			SPD 110		SPD 116 SPD 131			SPD 132				
			SUR 140	SUR 260	SUR 250	SUR 145		SUR 210 SUR 254				
						SSC 107						
						VET 101 VET 116		VET 100 VET 105				
								WEL 120 WEL 130				

*We may be replacing ART 111 with ART 106 in the certificate program.

** MTH 2 is taught in the individualized instruction MTH 1 classroom. MTH 3 and MTH 4 are taught in homogeneous traditional classes, as well as in the individualized instruction MTH 1 classroom.

ATTACHMENT 6

COURSE ASSESSMENT GUIDE

Faculty Teaching Course _____
Course Prefix, Number, and Title: _____ Prerequisites: _____

Student Learning Objectives (written as Student Learning Outcomes)	
Assessment Tasks	
Measurement	
Results	
Actions Taken (Based on Results)	

Skills and Content (optional)

What skills and content must students master to demonstrate the intended outcome?

Activities (optional)

What will students do to learn the skills and content?

ATTACHMENT 7

LFCC COLLEGE-WIDE COURSE CONTENT SUMMARY PREFIX-## - TITLE OF COURSE (# CR.)

COURSE DESCRIPTION

Insert Course Description from the VCCS Master Course file (<http://www.so.cc.va.us/mcf/alphabet.htm>) or from the LFCC Catalog. Include pre-requisites.

Lecture # hours. Laboratory 3 hours (if applicable). Total # hours per week.

GENERAL COURSE PURPOSE

Relate course to programs of study in which it is required.

ENTRY LEVEL COMPETENCIES

Repeat pre-requisites. Add other competencies needed either as related subject matter to master the course content with reasonable expectations of success, or in skills such as keyboarding or Internet navigation needed for completion of assignments.

STUDENT LEARNING OUTCOMES

After completing this course, the student should be able to:

- [list 5 to 7 statements of new student competencies that should be achieved; this total includes the general education outcomes]
- [use Bloom's taxonomy at higher order activities where appropriate]
- [**Student Learning Outcomes** identify the measurable knowledge, skills, behaviors, or attitudes of the learner as a result of engaging in a learning activity or program. SLOs are documented for each course in the Course Content Summary and in the syllabus for each section of the course. SLOs also track into Course Assessment]

In this course, the following VCCS General Education Outcomes are supported:

- [list at least 2 VCCS General Education Outcomes which are supported by this course in the format as shown below with outcome number designated]
- use problem solving skills (# 2.6)
- [include at least 1 from Outcome Area # 2 Critical Thinking]
- [see http://www.so.cc.va.us/vccsast/SBCC_Tables_5-1A_5-1B_1106.pdf for information on VCCS General Education requirements]

CORE TOPICS TO BE INCLUDED

- [80% of the course time must be spent covering these topics; remaining time may be used either cover additional topics or to review core topics]
- [may include a bullet for Supplemental Topics]

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Template on LFCC Intranet/Forms/Office of Learning

ATTACHMENT 8

SACS Standards Relating to Assessment

- 2.5 The institution engages in ongoing, integrated, and institution-wide research-based planning and evaluation processes that incorporate a systematic review of programs and services that (a) results in continuing improvement and (b) demonstrates that the institution is effectively accomplishing its mission.
- 2.7.3 The institution requires in each undergraduate degree program the successful completion of a general education component at the collegiate level that
 - (1) is a substantial component of each undergraduate degree
 - (2) ensures breadth of knowledge, and
 - (3) is based on a coherent rationale.
- 3.3.1 The institution identifies expected outcomes for its educational programs and its administrative and educational support services; assesses whether it achieves these outcomes; and provides evidence of improvement based on analysis of those results.
- 3.4.1 The institution demonstrates that each educational program for which academic credit is awarded (a) is approved by the faculty and the administration, and (b) establishes and evaluates program and learning outcomes.
- 3.4.12 The institution places primary responsibility for the content, quality, and effectiveness of its curriculum with its faculty.
- 3.4.13 For each major in a degree program, the institution assigns responsibility for program coordination, as well as for curriculum development and review, to persons academically qualified in the field.
- 3.5.1 The institution identifies college-level competencies within the general education core and provides evidence that graduates have attained those competencies.
- 3.7.2 The institution regularly evaluates the effectiveness of each faculty member in accord with published criteria, regardless of contractual or tenured status.
- 3.7.3 The institution provides evidence of ongoing professional development of faculty as teachers, scholars, and practitioners.
- 4.2 The institution maintains a curriculum that is directly related and appropriate to its purpose and goals and to diplomas, certificates, or degrees awarded.