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Few are challenged to create a general education curriculum for a new college, applying best practices while achieving articulation and accreditation of the program.

Cascadia Community College: Finding the “Cascadia Way”

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Not often is there a chance to build a general education curriculum from scratch. That is exactly what we did at Cascadia Community College in Bothell, thirteen miles north of Seattle, Washington. It was an opportunity to incorporate the best that research on students, curriculum design, and teaching and learning could offer. Yet we needed to develop a general education program—indeed an entire community college curriculum—within the context of some very conventional forces. This chapter describes how the general education program at Cascadia came about and what we learned along the way.

The Beginning

In early 1990, a Washington State master plan study revealed that the greatest projected number of underserved students was on the northeast shores of Lake Washington, thirteen miles from Seattle. In that same year, the University of Washington (UW) opened a branch campus in temporary quarters in Bothell. This was one of five public university branch campuses established by the legislature that year to provide time- and place-bound students with upper-division undergraduate studies.

In 1994, the state legislature created Cascadia Community College, recognizing the growing need for a comprehensive community college in the region. Cascadia and the University of Washington, Bothell, also were to share the same campus location and, to the extent possible, were to share services. The governor appointed a five-member board of trustees for the community college.

The enabling legislation provided funding only for planning the college. During this time, the college consisted of the interim president, one assistant, and one architect. Working with the board, they established the college's mission, policies on institutional governance and a facilities master plan, and negotiated arrangements with nearby Shoreline Community College to serve as Cascadia's initial fiscal agent and parent institution. The Cascadia board and the planning staff reviewed best educational practices and commissioned the design of the new college's facilities, site location, and colocation development with its UW partner.

The Mission

Cascadia's mission that emerged from this period of planning was an ambitious, exciting, and challenging one: "Cascadia Community College will be an exemplar of the 21st century community college, a learner centered, comprehensive, culturally rich, and technologically advanced learning and teaching institution, which emphasizes student achievement and educational excellence, seamlessly linked with the community area enterprise, and other educational institutions." This mission guided the creation of all college operations and each course of study. But before we could have programs, we needed facilities, interinstitutional arrangements for the acceptance of students who wished to transfer and continue their education at a baccalaureate-granting institution, and initial accreditation for programs.

In 1998, construction began for the new campus colocated with the UW Bothell, and following a national search, the first permanent president was selected. This was an incredibly busy time at the college as key personnel were hired, buildings arose, the curriculum was designed, and first linkages with the various communities of the district were established. By the fall of 1999, Cascadia was offering continuing education classes, and a year later, Cascadia opened its new doors to credit and noncredit students, offering a full range of career and academic transfer in its new facility. From three employees in 1998, the college has grown to over 275 employees, and has exceeded all enrollment projections, serving over twenty-five hundred students in 2002. It is within that context of beginning, planning, and growth that the general education curriculum came into being. Meeting statewide guidelines governing the recognition, acceptance, and transfer of general education course work was a necessary, albeit conventional, factor in creating this new curriculum.

Academic Statewide Guidelines and Policies

Cascadia's general education program needed not only to meet the standards for regional accreditation but also to comply with state policy regarding transfer of credits. The Higher Education Coordinating Board oversees all of higher education in the state of Washington and provides planning,

coordination, monitoring, and policy analysis. Germane to this discussion is the Policy on Inter-College Transfer and Articulation, which governs the transfer of students and the credits they have earned between the public institutions of higher education in the state. For their part, the colleges and universities of Washington have long recognized the importance of easing the transfer of students from one institution to another. Working both directly, college-to-college, and through voluntary associations, such as the Inter-College Relations Commission, they founded mutually acceptable guidelines and procedures for student transfer. Private (independent) institutions work in similar bilateral ways to facilitate transfer of community college students to their institutions.

Also governing general education in the state is the direct transfer agreement (DTA) developed by the Inter-College Relations Commission to facilitate the transfer of students attaining the associate degree or equivalents. These guidelines specify a distributional system of general education course work that sets parameters for the development of general education programs such that we were to design at Cascadia. The DTA associate degree contains ninety quarter-hours of lower-division credit, sixty of them in general education courses. The DTA plan for general education is further subdivided into basic requirements and distribution requirements as follows:

Basic requirements, which include communication skills (ten credits), quantitative and symbolic reasoning skills (five credits), and intermediate algebra proficiency

Distribution requirements: humanities (fifteen to twenty credits), social sciences (fifteen to twenty credits), natural sciences (fifteen to twenty credits), and electives

Student using the DTA associate degree to meet general education requirements need to earn at least a cumulative grade point average of 2.00. Remedial courses (those numbered below 100) are not included in the DTA associate degree.

Cascadia's new curriculum needed to meet the basic general education guidelines and policies of the state. It also needed to fulfill the standards for general education, transfer of credits, and assessment of program set by the Northwest Association of Schools, Colleges and Universities. The challenge was to be innovative and to create the best learning environment for student learning and success within those parameters.

Deriving the Design Principles

While existing colleges and universities often can draw on years of experience and volumes of institutional research on their students and their programs, Cascadia was a new institution. It was also not bound by politics and loyalties of existing programs, policies, and practices. As a learning

organization, grounding practice in the good research and the knowledge of what works in college made good sense (Richart, 1998). Thus, we turned to pertinent literature on teaching and learning, on students in college, and on curricular design and effectiveness for guidance in crafting the new curriculum.

Early in 1999, we established the Curriculum and Learning Design Team (CLDT), comprising four newly hired faculty members, and charged it with the development of the general education curriculum. The resulting “Steps to Student Success,” Cascadia “Learning Model,” and “Student Learning Outcomes” are graphically described on the college’s Web site (www.cascadia.ctc.edu). The team was assisted by the president of the college and the college academic administrators, as well as by Ruth Stiehl of the University of Oregon, who served as consultant. Stiehl is coauthor (with Les Lewchuk) of *The Outcomes Primer: Reconstructing the College Curriculum* (2000), and her work gave great guidance to the project, particularly in focusing the new curriculum on outcomes and competencies rather than credits and seat time as indicators of student success.

Underprepared Students. CLDT and the administrative team began by considering students not fully prepared to undertake collegiate-level work. Some students do not receive sufficient preparation in secondary schools to succeed in collegiate studies. Others have been away from education for several years, and as working adults find that knowledge and skills have changed dramatically. Many are first-generation students coming from homes where neither parents, nor brothers and sisters, nor peers have been to college and therefore cannot provide guidance in navigating successfully to complete personal, career, or academic goals.

As a new community college, Cascadia needed to determine how it would address curricular offerings for underprepared students. It found abundant evidence at all educational levels (K–16) that underprepared and minority students continue to face enormous barriers, often being relegated to unchallenging and irrelevant remedial courses. Conventional approaches to remediation often increase the time and expense needed for students to complete their studies and often marginalize them in the process (Dilworth and Robinson, 1995). Cascadia needed to create culturally responsive courses using pedagogy appropriate for the underprepared, enhancing their learning experience, and providing them with a breadth of understanding that was appropriately enabling.

From the research, the CLDT and the administrative team learned of important characteristics that programs successful in targeting at-risk students held in common. Racial, ethnic, linguistic, and other differences were seen as assets on which courses were built rather than employing a conventional deficit model that began with real or imagined weaknesses of students, society, or the community (Dilworth and Robinson, 1995).

We believed that socially conscious curricular restructuring would increase equity and access for students. Uri Treisman at the University of

California, Berkeley, has found that project-based collaborative learning is a powerful means of engaging students who have not performed well in traditional instructional settings. "Disadvantaged" students at Berkeley often failed basic science and math courses. Treisman placed these students in workshop settings, challenged them with problems more complex than those found in standard courses, fostered study groups, urged them to set high expectations, and helped them see that they could achieve success and learn "the unspoken wisdom of excellence." The students in his program produced levels of achievement rivaling those of traditional students in the university (Garland and Treisman, 1993; Treisman, 1994). Drawing on research and good practices, Cascadia's precollegiate curriculum was designed to promote inclusion and access. Precollegiate and general education needed to be closely articulated in the most positive, reaffirming, and engaging manner.

What to Learn. A key question in the fashioning of general education is, "What should all students learn and know?" In a community college, general education programs need to serve both those transferring to four-year undergraduate programs and those in technical, professional, and career programs. To approach this question, the CLDT and the administrative team reviewed literature on how students regard their own learning and what the social expectations would be for which they should be prepared. The research indicated that information age workers would need to spend at least 20 percent of their day engaged in learning, so students should become extremely facile in their learning mechanisms to remain competitive in the global market. Students' knowledge, skills, and abilities should prepare them for their next career and enable them to move between careers and be proficient in civic and personal matters as well. General education needed to be cast broadly in defining what to learn. Also, Cascadia would need to focus on customer satisfaction as a hallmark of an effective program, as would the students on entering the workforce. For them to persist, succeed, and attain their goals and for employers to seek them out and offer them career opportunities, Cascadia's programs needed to be engaging and relevant (Case, 1995; Freiberg and Freiberg, 1996; Hammer and Champy, 1993; McIntyre, 1996; Rifkin, 1995; Rowley, Lujan, and Dolence, 1997; Simsek and Louis, 1994; Weisbord, 1992; Zemsky, 1994).

Nationally, changes in the organization of work have been increasing the demand for workers with higher levels of skill development. This has been true for both technical and nontechnical skills and for all types of workers. The 1991 report by the U.S. Department of Labor, Secretary's Commission on Achieving Necessary Skills (SCANS) concluded that "good jobs will increasingly depend on people who can put knowledge to work" (U.S. Department of Labor, 1991). This included proficiencies in basic skills (reading, writing, computation, listening, speaking), along with the ability to think creatively, collaborate, and adapt readily to changes in their work, including technological changes; such skills are crucial in a global economy

(U.S. Department of Labor, 1991). The CLDT used the SCANS report as a touchstone for defining general education goals, identifying and integrating key competencies into the curriculum, and selecting instructional strategies intended to strengthen the skills of adults in daily life and the workplace. We concluded that the ability to communicate, especially with people from other cultures, was crucial for all students. The global worker's preparation requires a curriculum that promotes understanding of cultural, social, and political differences and enhances common values and shared insights. This training necessarily includes the development of interpersonal skills that will enhance the worker's ability to participate, form, and lead teams and coalitions of people from their own and differing cultures.

We concluded that these skills manifest themselves in various disciplines as well as general education. Thus, each major course of study at Cascadia needed to consider how to strengthen student learning in the basic skills areas identified by the SCANS report. The skills of the global worker, such as the ability to work in teams of people and with varied cultures, are relevant not only to the work environment but also to the social and political fabric of the nation. When rethinking the curriculum, we wanted these key skills manifest in both the general education course work and that specific to the major.

Students' ability to synthesize information emerged in our planning as a particularly important skill. A by-product of the information explosion is the inevitable increasing importance for learners to synthesize vast amounts of information in a meaningful way (Davis, 1995; Dolence and Norris, 1995). This skill is crucial to success in contemporary organizations and thereby needed to occupy a central place in the learning environment and educational programs at Cascadia.

The Common Core of Learning Outcomes. The college learning outcomes are goals not just for all Cascadia students but also for faculty, administrators, and staff. They are intended as an interrelated set to be practiced as lifelong learning habits. They are designed to encourage personal growth, enhance productive citizenship, and foster individual and cooperative learning. They are a basis for assessment inside and outside the classroom and among students, faculty, and staff; they guide learning, decision making, and actions by all members of the college community. They are embedded throughout Cascadia's curriculum, and students are assessed on their achievement as well as on course- and program-specific content and skills. Progress in the achievement of these outcomes is also present in the evaluation processes for administrators and staff and is part of the tenure process and evaluation of the faculty.

The Common Core of Learning Outcomes can be summarized as follows (the full Learning Outcomes Model can be viewed at <http://www.cascadia.ctc.edu/LearningForTheFuture/learningoutcomes.asp>):

To think critically, creatively and reflectively. Reason and imagination are fundamental to problem solving and critical examination of ideas.

To learn actively. Learning is a personal interactive process that results in greater expertise and more comprehensive understanding of the world.

To communicate with clarity and originality. The ability to exchange ideas and information is essential to personal growth, productive work and societal vitality.

To interact in diverse and complex environments. Successful negotiation through our interdependent global society requires knowledge and awareness of staff and others, as well as enhanced interaction skills.

How Learning Should Occur. The focus of CLDT and the administrative team deliberations then shifted to research on student learning styles, multiple intelligences, and developmental issues related to age, gender, race, nationality, and life experiences of the students. We turned to research on student learning, searching for models that emphasized student productivity rather than faculty productivity, characterized what students needed to learn developmentally rather than how learning could be organized by conventional disciplinary divisions, and examined student learning styles rather than faculty instructional strategies (American Association of Community and Junior Colleges, 1988; Association of Governing Boards of Universities and Colleges, 1996; Angelo, 1993; Astin, 1993; Barr and Tagg, 1995; Carter and Alfred, 1996; Chickering and Gamson, 1991; Katz and Henry, 1988; Norman, 1993; O'Banion, 1995; O'Banion, 1996; Weinstein, 1996).

Chickering and Gamson, in *Seven Principles for Good Practices in Undergraduate Education* (1991), conclude that good curricular and instructional practices (1) encourage student-faculty contact, (2) encourage cooperation among students, (3) encourage active learning, (4) give prompt feedback to students, (5) emphasize the time on task required to master the learning, (6) communicate high expectations of student and staff, and (7) respect the diverse talents and ways of learning. The primary learning environment for undergraduate students, the lecture-discussion format, can be enhanced or replaced with practices based on these seven principles. As a new institution with new curricula, Cascadia did not have to break with old habits or discard time-worn instructional techniques. Nevertheless, we needed to identify and establish the instructional practices and the curricular designs that built on the seven principles if they were to become part of the programs and courses of study offered. This was our challenge; we believe it is clearly one of the principal challenges for all institutions of the new millennium. We need to focus not so much on how faculty teach but on how students learn, thus engaging in an active educational agenda to enhance such learning (Newmann, 1993).

Strategies for Effective Learning. Some early educational research (Angelo, 1993; Astin, 1993; Bok, 1986; Chickering and Gamson, 1991; Gates, 1996; Magolda, 1996; Newmann, 1993; Norman, 1993; Pascarella and Terenzini, 1991; Weinstein, 1996) was aggregated and summarized; student learning at the undergraduate level was defined around four primary

learning strategies: (1) accumulation of information and knowledge, (2) skill development, (3) conceptual development, and (4) synthesis of knowledge.

We also looked at the research conducted at the Institute for Research on Learning (Institute for Research on Learning, 1997) that challenged past assumptions regarding the basic principles of effective learning. The IRL identified seven characteristics of learning that we used in designing Cascadia's new curricula: (1) learning is fundamentally social, (2) knowledge is generated in the life of communities, (3) learning is an act of membership, (4) knowing depends on engagement and practice, (5) engagement is inseparable from empowerment, (6) failure to learn is the result of exclusion from participation, and (7) we already have a society of lifelong learners. The CLDT therefore grouped courses that could be offered in learning modules to encourage collaborative learning and, where appropriate, provided simulations of specific social and cultural environments.

Today's students are attuned to working with computer-generated environments, whether by playing games, surfing the Internet, or working with interactive television systems. Research has indicated that information can be learned through a variety of media, including electronic sources, individual or group interactions with faculty, lecture-discussions, or real-life experiences, simulations, or peer study (Davis, 1995; Dolence and Norris, 1995; Gates, 1996; Gilbert, 1996; Guskin, 1995; Johnstone and Krauth, 1996; Newmann, 1993). The CLDT therefore added the use of interactive technologies and simulated laboratories as prevalent instructional strategies in Cascadia's curricular designs.

Conceptual learning takes place when students are motivated to examine and go beyond their current assumptions. It follows that successful teaching occurs when students are enticed and motivated by the excitement and interest generated in the topic and when they are given the proper tools to reflect, explore, compare, integrate, and form the proper conceptual structures. The challenge is to motivate students so that they want to do the hard work necessary for self-reflection and development. Students who are highly motivated learn more deeply and thoroughly than those who are uninterested, regardless of the instructional strategies used (Norman, 1993; Institute for Research on Learning, 1997).

Current and future generations may enter college exhibiting less ability to sustain the level of interest and attention required for deep learning. Yet these students often become highly motivated and learn quickly through interactive games, television, and films. Norman (1993) observed that game makers and entertainers knew how to capture interest and stimulate real learning in these students (albeit, learning skills and subjects largely irrelevant to higher education). He advocated merging the skills of the game maker and electronic entertainer with the educator's skills of promoting reflection and in-depth analysis.

To effect this merger and to promote active learning, new roles for faculty and new strategies for teaching are needed. Alexander Astin (1993) has

identified good practices that lead to active learning in college. Teachers need to spend more time engaged in activities associated with the promotion of active student learning. These include direct individual faculty-student interaction outside the classroom and intense small group discussions inside. Faculty need to engage more in the mentoring and advising of students and in encouraging students to be involved in activities associated with success: peer-group, team-oriented learning; peer tutoring and coaching; and experiential learning outside the institution. Within this context, we envisioned new roles for Cascadia faculty as facilitators, knowledge navigators, and learner-service intermediaries (American Association of Community and Junior Colleges, 1988; Barr and Tagg, 1995; Bowen, 1992; Carter and Alfred, 1996; Davis, 1995; Dolence and Norris, 1995; Harlacher and Gollattscheck, 1996; Katz and Henry, 1988; O'Banion 1995, 1996; Rifkin, 1995, 1996; Stewart, 1996; Weinstein, 1996).

At Cascadia Community College, we sought to create a learning environment built on the findings and recommendations of Norman (1993), Chickering and Gamson (1991), Pascarella and Terenzini (1991), and Astin (1993).

From Mission to Goals and Degrees

When designing a general education curriculum (or the curriculum of an entire college for that matter), where do you begin? How do you apply the research and best practices to the design process? How do you build a general education curriculum that is meaningful, active, and engaging for students and meets the skill needs for a twenty-first-century global workforce? How do you create a curriculum that prepares students who wish to transfer and complete baccalaureate degrees at a variety of institutions, particularly the one with which we were to share a campus? Our challenge was to be both sufficiently innovative to meet student needs and employer expectations and yet adequately traditional to fit the mold of the existing general education and academic transfer practices.

Translating the Mission. We chose to begin our work by translating the key words in the college's mission into practical guiding principles for curriculum design. From our mission came our purposes for general education.

The Cascadia mission called for a "comprehensive" community college wherein general education served both students preparing to enter the workforce as well as those planning to transfer to a baccalaureate-granting institution. The general education program would also need to be fully articulated with developmental courses serving underprepared students.

The Cascadia mission demanded that the programs and services be "culturally rich." In the courses and modules created, students, faculty, staff, and the community would need to find their cultures valued and celebrated. Learning would be rich in that everyone would be encouraged to share and

learn from one another in order to build a stronger society committed to work for the good of each and of all. For general education, this also meant creating a global curriculum, giving specific attention to cultures and languages of the world.

The Cascadia mission required “technologically advanced” programs and services. The college district encompasses the high-technology corridor of Washington State and therefore needed to equip all students to be adept and able in the information age. Therefore, general education courses, as with all other curricular offerings, would have a high-technology component, and the college would rely heavily on technology to provide for its own learning and growth as well. Cost-effective technologies would be used to connect students to faculty and staff and worldwide resources and to enhance learner achievement. We used “learner centered” in this context to mean all members of the college community, including students, faculty, staff, and administrators.

The Cascadia mission asserted that programs should promote “high student achievement.” The CLDT decided that successful progression of all students to their educational goals would be sustained in a variety of ways. First, high expectations for student achievement and success would be represented in Cascadia’s learning model (communicated to the entire campus community on the college’s Web site). Student success and progress through the curriculum would be reinforced through effective advising. Everywhere we tried to stress that learning comes first and the assessment of student learning is continuous. Student learning outcomes would be communicated collegewide as well. Students would be assessed and provided feedback on their achievement of content knowledge and key skills. Electronic student portfolios would be established to track student achievement. General education modules would link courses and foster collaborative learning. Peers were used wherever possible to enhance the teaching-learning process. Learning communities and courses linked by thematic strands were designed to make learning more relevant and help students place individual courses within the larger context and agenda for learning. For students who would join us on this journey of high achievement, we offered a degree completion guarantee as well.

The Cascadia mission called for “student achievement and educational excellence.” We recognized that this had come to mean different things to different people, so we chose to focus on what research had shown to be the hallmarks of student success. Thus, educational excellence for Cascadia’s programs was defined as having clearly defined educational outcomes; high and relevant standards for their achievement; superior instructional strategies and educational activities by which students could achieve the standards; efficient and effective use of the student’s investment of time, money, and effort and the public’s investment of resources in accomplishing educational aims; the vigilant application of best practices in all educational programs; and the acceptance of change as a necessary condition of a learning organization.

Cascadia's mission called for the total college curriculum to be "seamlessly linked with the community, area enterprise and educational partners." For general education, this meant ongoing assessment of courses and modules relative to employer needs for a skilled workforce, student interests and abilities, and the expectations of those public and private institutions receiving Cascadia transfer students, particularly the University of Washington, Bothell. It also called for close communication, partnership, and articulation of school reforms in the area's secondary schools. Finally, it meant that Cascadia's leadership, faculty, and staff needed to be willing to change and to be responsive to needs as they became apparent through the college's assessment processes.

General education course objectives and student outcomes were designed to meet or exceed the expectations of transfer institutions. Technical and professional degrees, including their general education components and performance standards, were validated by the businesses and industries that would employ Cascadia's graduates. Courses and modules were developed with an eye to providing practical applications of what was being learned, not only in class assignments and projects but also in career-relevant internships and service-learning opportunities. Rather than develop a course for every subject and skill we wished to convey in the new curriculum, the CLDT sought to embed key values and abilities in most all courses: respect, tolerance, and civility toward others; interpersonal skills and teamwork; collaboration, compromise, and consensus-building skills; a sense of responsibility for self and others; and honesty and integrity.

The Cascadia Learner Profile. Our next step was to create the Cascadia learner profile, a needs assessment of the educational needs of the region that described who the college's future students would be. This research resulted in a profile of learners reflective of a wide variety of needs and goals. Although it was conducted in and unique to Cascadia's district, it was also typical of many other American community colleges. The specific academic, professional, and technical programs were designed to meet the variety of needs identified. In addition, all learners, regardless of their intent, needed to master a common core of learning outcomes. Thus, creating the learner profile affirmed the need for and further specified the substance of the general education program.

Because the curriculum was developed prior to any full-time student enrollment, it was necessary to estimate the mix of students to be served. As general education in most community colleges has several masters, such planning was essential. Based on broad community input and research, as well as the colocation with the University of Washington, Bothell, the initial academic and professional and technical offerings at Cascadia were designed to fit a profile of 68 percent academic transfer students, 20 percent professional and technical students, including diploma (six-month) and certificate (one-year) programs, and 12 percent precollege, underprepared, and special needs students. This became the Cascadia learner profile from which the CLDT worked to design the curriculum. The result of this work became

our current offerings of three transfer degrees, three applied degrees, and six certificate programs, most served in part by general education courses and modules.

Creating Cascadia's Curriculum

Following the analysis of the implication of Cascadia's mission for the new curriculum and after we created the Cascadia Learner Profile, we began to design the new curriculum.

Curricular Guiding Principles. The construction of the curriculum was based on principles derived from the mission, the review of research and good practices, the Cascadia learner profile, and the college's learning outcomes. These principles under which we operated were as follows: diversity and respect for difference are hallmarks of a true learning community; all members of the community are learners and must strive to make learning relevant and connected; learning is transformative and personal, and it cannot be predicted or controlled; and access is a critical factor in all decision making. These principles were next employed in the design of specific courses.

The Course Design Process. Drawing on these principles, the learner profile, and the Common Core of Learning Outcomes, the curriculum was designed, starting with the progression of course-by-course development and moving toward program and degree completion. A primary concern was to make courses relevant to students, focusing on student learning and not teaching. The following steps were followed in developing individual courses and modules:

1. Evaluate the context. Look at the broad surrounding environment, such as other schools, colleges and universities, businesses, and the community. Develop the courses and programs to meet those needs and demands.
2. Define the learning outcomes. Decide what students should know and do for that course or series of courses, programs, or degrees. Focus on student learning.
3. Describe the outcome measures. Design means by which students will demonstrate evidence of achievement of the outcomes.
4. Decide on the content. Decide what knowledge and skills need to be taught in order for students to achieve the outcomes identified in step 2.
5. Identify best practices. Choose how the course or series of courses, programs, and degrees should be presented, selecting the best possible delivery modes.
6. Return to step 1 and reassess currency and relevance.

Using this design sequence, the CLDT guided the development and implementation of courses and modules throughout the College.

General Education Requirements. The associate degrees and general education requirements at Cascadia require completion of twenty-three credits in Foundations for College Success, which encompass the areas of communication skills (college composition, writing from research and multicultural communications), college success (college success strategies, study at Cascadia, e-portfolio development and effective study techniques), and quantitative reasoning (mathematics). In addition, students must complete a cultural knowledge requirement, which can be completed through distribution requirements of humanities (fifteen credits), natural sciences (fifteen credits), social sciences (fifteen credits), and electives (twenty-two credits). Although these requirements addressed the statewide articulation and transfer policies, Cascadia adopted several features that were distinctive and that reflected its commitment to be a learning college:

- **Teamwork embedded in the curriculum.** Cascadia believes strongly that all students need to develop the ability to work effectively in small group settings. Teamwork directly furthers the core learning outcomes. This belief is supported by extensive research on effective teaching and learning. Employers consistently indicate that the abilities to communicate, solve problems, make decisions, and interact with diverse individuals and viewpoints in a group setting are critical to success in the workplace, no matter what type of position one holds. Students need to know how to work and interact collaboratively in order to survive in today’s complex, interdependent, and increasingly international world. This is why teamwork is important to Cascadia. Students find that courses throughout Cascadia’s curriculum—foundation classes, academic classes, technology classes—require them to work in group settings.

- **Mathematics modules.** In Cascadia’s mathematics courses, students learn concepts, skills, and how math is used in life, the workplace, and other college subjects. Many math courses require students to register simultaneously in a core class and one of several modules that require the application of mathematics to the arts and sciences or to technology.

- **Learning communities.** Learning communities offer an alternative to the traditional individual course approach. They are courses and modules linked by specific themes and intended to ask students to synthesize knowledge and ideas across disciplines, help students understand patterns in the organization of knowledge, make connections among different fields of knowledge, and integrate their studies with personal experience and intellectual growth. A typical learning community may meet two days a week for four hours daily. It may include workshops, seminars, lectures, field trips, group projects, and writing assignments. Seminars play a crucial role in synthesizing the learning process; participants often learn to analyze and critique arguments, cooperate in group discussion, read critically, and debate logically. Writing assignments and group projects allow students to clarify and express their ideas and make connections among many subjects.

Learning communities represent an integrated educational approach to general education and to major academic and professional fields. College-level learning community courses apply to the associate of integrated studies and associate of science degrees and may transfer to other colleges and universities.

Guaranteed Associate of Integrated Studies. One unique alternative in general education at Cascadia is the guaranteed associate of integrated studies (AIS) degree. For first-generation students who may have no direct familiarity with college success and for working adults trying to balance job, family, and schooling, the AIS degree combines the basic components of student success at Cascadia. Students are guaranteed blocks of classes every quarter, enabling a sequential progress toward degree completion. They encounter the best in our educational practices, integrating knowledge skills across academic disciplines in team-taught learning communities. The organization of courses and modules into blocks provides efficiency and convenience of time as well. They know they will get the courses and sequences necessary to complete the degree. The AIS degree offers another important dimension as well. At Cascadia, we believe that integrating knowledge and skills across academic disciplines is important to becoming an educated person. This is why we offer the AIS degree as an option under the statewide direct transfer agreement.

Electronic Portfolio. At Cascadia, students develop personalized, electronic, Web-based portfolios to demonstrate their learning. The e-Portfolio provides a place to record and store a wide range of important materials and information, including career and educational goals, academic accomplishments, special projects, personal reflections, and affirmations from others. It holds tangible products that demonstrate students' skills and showcases their accomplishments. Students create an initial portfolio as part of the College Strategies or Careers in Information Technology classes and continue to add to its content throughout their college experience. The e-Portfolio is an effective way for students to demonstrate their knowledge, skills, and abilities to prospective employers or universities.

Advisory Committees and the Review of Curriculum. The CLDT and the Cascadia administrative team assembled curricular advisory committees for general education and the professional and technical programs as well. These committees were composed of faculty from neighboring community colleges, the University of Washington, Bothell, the University of Washington, Seattle, the local school districts, Evergreen State College, the Washington Center for Undergraduate Education, and Oregon State University. Each committee also had representation from business and industry and local and state governmental agencies. The advisory committees reviewed and suggested refinements to the courses. Once the courses met the design and curricular standards of the college and had received favorable reviews from the appropriate advisory committee, they became part of the self-study documentation for accreditation candidacy

and state approval. Each course, program, and degree created in this way was presented for approval to the Shoreline Community College Curriculum Committee, the State Board for Community and Technical Colleges, and the State of Washington’s Higher Education Coordinating Board.

Lessons Learned

It is not easy being different and innovative while at the same time fitting the mold of statewide general education standards and articulation agreements. We continue to struggle with how we present ourselves to our students and our partner institutions. Hoping to assist multiple audiences, our schedule of classes and catalogue illustrate prominently the college learning outcomes and their definitions, as well as Cascadia’s learning model. In addition, this information is notably displayed in college publications.

I am pleased to report that students are thriving in the environment we have created. They are blossoming in classrooms where faculty assist them in discovering knowledge and skills and where they are expected to contribute to class by working in teams, to present their discoveries through the electronic podiums, to lead and teach others, and to be responsible for their own learning. Students have taken their learning to heights that have challenged faculty, staff, and administration and have exceeded all our expectations. We have indeed created a learning college, where all of us continue to grow and learn from ourselves and, most important, from our students.

Our best-laid plans, like those of others, needed refinement when confronted with the reality and the expectations of our students. We have entirely revised the College Strategies courses in response to requests by students as well as the faculty who have been teaching them. The e-Portfolio, which is introduced in these classes, has been improved through the input of faculty and students. We have reached a workable compromise with our university transfer partners regarding the mathematics modules and how to best translate them in order to make them transferable. We are now developing additional courses. Overall, the general education program is working very well and is well received and appreciated by students. As it grows, we continue to focus on students’ strengths and build on those.

Since our belief systems and educational delivery methodologies are somewhat out of the norm, we have established two initiatives to assist us as we grow. We have launched the Employee Learning Institute to assist all employees with their personal and professional goals and to learn the “Cascadia way” by sharing our research, practices, beliefs, and organizational principles and structures. We have also established the Teaching and Learning Academy (TLA) designed primarily for the faculty to foster innovation and continuous teaching and learning improvement and a community of Cascadia scholars. Through the TLA, faculty can share experiences and grow while at the same time keeping current in the best practices.

Supporting associate (part-time) faculty is one of the central responsibilities of the TLA. Our intent is to ensure that their teaching style is learner and learning focused and that they are able to incorporate the collegewide learning outcomes into their classes. These efforts alone, however, are not sufficient, and without additional funds to support their formal participation in the TLA, maintaining a core of well-trained associate faculty will be difficult as enrollment grows.

Innovation has not trumped convention, however, and students, staff, faculty, and administrative leaders come to us from more traditional educational environments. We continue to struggle over how to best translate “seat time” requirements into “outcomes” language, searching for consistency between course outcomes, program outcomes, collegewide outcomes, and distribution area outcomes.

Finally, while we have established the e-Portfolios for students, we have just begun the work on a thorough assessment of all programs and practices. This is ongoing work as we search, learn, and apply our discoveries and continue to assess, improve, and learn. The next challenge is to create a true learning organization, one based on a culture that values its own assessment and improvement.

Next Steps: Creating a Culture of Assessment

The Cascadia faculty is organized into interdisciplinary learning outcome teams (LOTs), reflective of the four college learning outcomes. In addition each college employee—faculty, staff, and administration—and students join one of the four LOTs to participate in collegewide governance activities. The LOTs serve two functions. First, they have institutionwide responsibilities for the research, development, and assessment activities around their particular learning outcome; institutionwide communication relative to that learning outcome; and strategic planning. In this first function, LOT facilitators, appointed by and reporting to the president, lead the groups; the facilitators are employees given either a one-third release from their regular assignments or funding for support. The second function of the LOTs is focused on the conduct of teaching and learning, curriculum design and development, creation of the schedule of classes, hiring and evaluation of associate faculty, and facilitation of the tenure process, again relative to the specified learning outcome. In carrying out this second function, LOT teaching and learning leaders guide the LOTs; they are faculty on one-third release time and report to the vice president of student learning.

After spending a year in institutional-building activities, the LOTs spent the second year engaged in the creation of the rubrics for assessment of both collegewide learning outcomes and courses and programs. During the third year, the LOTs have focused on strategic planning initiatives. In addition, the college assessment team has focused on unpacking the learning outcomes and course and program outcomes, creating distinct measurable

terms. An assessment fair is now in planning for the end of each quarter, where students and employees can present their achievements. Finally, the Institutional Effectiveness Committee is developing the college's learning and educational assessment plan. We are well under way, but much remains to be done.

It is said that after completing the Sistine Chapel, Michelangelo said, "*Ancora Imparo*" (I am still learning). At Cascadia, we will always continue to learn.

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