Chapter 7
Undergraduate Education Accomplishments

Criterion Three – Undergraduate Education: *Colorado State University is accomplishing its undergraduate educational purposes.*

Introduction

Evidence of how CSU accomplishes its purposes in fulfillment of Criterion Three is divided and presented in four chapters in this Self-Study Report. This chapter focuses only on the undergraduate academic experience. Many of the institutional accomplishments described in subsequent chapters support and enhance the undergraduate experience. For example, graduate education programs (Chapter 8) provide GTAs, research (Chapter 9) and outreach programs (Chapter 10) provide opportunities for applied learning, and the integrity discussion (Chapter 12) describes how on-campus and off-campus diversity initiatives, community building efforts, and leadership experiences contribute to student character development.

In Chapter 5, undergraduate education was identified as one of the University's purposes:

One of the top public universities for educational quality and affordability.

> **Provide a High-Quality Undergraduate Experience**
>
> The University will continue to review and enhance the educational opportunities available to undergraduate students. Programs will be designed to meet the contemporary and future needs of students by developing critical thinking, communication skills, problem-solving capabilities, technical expertise, and an awareness and appreciation of varying perspectives. Excellent teaching and advising are necessary to assure a high-quality undergraduate experience.

Most of this chapter's organizational structure parallels the chronology of the student learning experience, whereby students experience successful transitions through college preparation and orientation programs, engage as learners in a well-designed learning environment, and achieve an excellent education (enroll in and complete quality educational programs). The implementation of academic assessment processes as practiced at CSU is reviewed. Evidence of student learning is provided through examples of program quality and student accomplishments. This chapter demonstrates that CSU is accomplishing its academic purposes for undergraduate education, primarily by documenting CSU's institutional effectiveness through evidence of high-quality student learning experiences.

Transitions: Student Access, Integration and Retention

The University community has become increasingly aware of the importance of students' early experiences in facilitating a successful transition to academic and campus life. Historically, about 80% of students who leave the University do so within the first four

semesters of enrollment. Indeed, it is apparent that pre-college and first-year experiences have a strong impact on students' engagement with the campus and eventual graduation. The student experience continues to be a series of transitions through graduation and integration as productive citizens of society. Successful support of these transitions is effectively documented by retention, progression, graduation, and job-placement rates.

Access

In addition to actively seeking to assure access for many students through recruitment, enrollment, and financial aid as described in Chapter 6, CSU actively seeks to assist in the preparation of students for successful matriculation at CSU.

Preparing Students for Postsecondary Education

The University has made a long-term commitment to preparing students from groups that are underrepresented in higher education for successful entry and transition. Several federal TRIO Programs coordinated by the **Center for Educational Access and Outreach** (a unit within DSA) are representative of that commitment. A common goal of these programs is to increase access to postsecondary education for students who are from first generation and/or low-income backgrounds. **Upward Bound** identifies approximately 85 promising high school students each year and assists them in developing the motivation and academic skills to enter and succeed in college. Over the last 5 years, more than 90% of Upward Bound seniors have entered postsecondary education immediately after high school. Approximately 40% of Upward Bound graduates have enrolled at CSU. **Educational Talent Search** provides early intervention and support to encourage approximately 1,000 students per year in the 6th through 12th grades to prepare for and enter postsecondary education. Over the past 5 years, 74% of Talent Search graduates have entered postsecondary education immediately after high school. Approximately 20% of Talent Search graduates have enrolled at CSU. The **Educational Opportunity Center** identifies adults who wish to enter or continue their education by earning a GED, returning to an educational program, or entering college. The program serves approximately 2,600 individuals a year by providing information on educational opportunities and assisting program participants in applying for admissions and financial aid.

The Center for Educational Access and Outreach also manages a **Bridge Scholars Program**, serving 15 to 30 students a year, depending on the availability of resources. These students are generally from first generation or low-income backgrounds, and are most often ethnically diverse. During the summer before matriculation, program participants reside together on the same floor of a residence hall, enroll as a cohort in three University courses (8 credits), and receive coaching and mentoring from successful upper division students and

program staff. Long-term retention rates suggest Bridge Scholars will persist at or above University rates.

CSU has entered into several partnerships designed to nurture student leadership capacity and motivation to attend college. CSU has been in partnership with the National Hispanic Institute since 1989 and has become the only institution of higher education in Colorado and one of only five institutions nationwide to host a **National Hispanic Institute/Collegiate Leadership Network** program each summer, bringing Hispanic, Latino, and Chicano high school students to campus for leadership training. **Black Issues Forum** is a pre-collegiate leadership program sponsored by the CSU Admissions Office to provide students from across the U.S. a vehicle to demonstrate their written and oral communication skills and to enhance their leadership potential.

Orientation

Orientation is one way that the University is able to influence students' expectations, provide important information, promote student comfort with the institution, and facilitate a successful transition to the campus. CSU provides a variety of ways for students and their families to receive orientation services (Table 7-1). Efforts have been made to assure that students have positive orientation experiences prior to enrollment at CSU. Two years ago, policies were adopted that require students to attend Preview Orientation before they can obtain early academic advising and register for courses; exceptions are allowed for students attending a Non-Resident Orientation session or PRIDE. For the entering class of 2002, 86.4% of new freshmen participated in an orientation program before the start of fall semester. Orientation for new transfer students (Next Step) has expanded even more dramatically. By conducting extensive outreach and marketing efforts and adding orientation sessions during both spring and summer, Next Step has grown from 179 student participants in 1998 to 1,088 participants in 2002.

A number of program improvements have been made for Preview and Next Step orientations. Enhancements of Preview have included increased faculty involvement with orientation; more attention to parent/family member orientation needs; review of literature about the "millennial generation" and their parents; more time for students to meet with academic advisors; earlier scoring of Composition Placement Examinations to incorporate placement information in advising; and adding more information and opportunity to register for Preview and Next Step on the orientation website. The Next Step program changes included reducing the program length from two days to a single day; increasing from two sessions in 1999 to seven sessions in 2001 and 2002; adjusting session schedules to accommodate early student commitment to enroll; and increasing programming for parents in response to unexpected heavy attendance by parents and family members.

Table 7-1. CSU orientation programs.

Program	Intended Audience	Schedule	Participation Level, FY03	Assessment
Non-Resident Orientation (NRO) Program (Admissions Office)	First-time Freshmen: Admitted nonresident students in selected out-of-state cities	Spring	396 students 493 parents	98.8% of student respondents (170) and 100% of parent respondents indicated CSU representatives were very knowledgeable, helpful, and informative. Similar numbers confirmed that students and parents have a better understanding of CSU after the program. The yield rate for 2002 programs (percent of participants who actually enrolled) was strong: 71.5%.
PRIDE Orientation Program	First-time Freshmen: Ethnically diverse students and their parents	April	164 students 199 parents	Participant responses indicated that students' likelihood of enrolling either remained strong or increased after attending the orientation.
Preview CSU	First-time Freshmen: All first-time students who have not attended an NRO or PRIDE program	June-July	3,474 students 3,291 parents and/or guests	93% of students indicate that "overall, the PREVIEW program is worthwhile." 94% of parents indicate that "It was beneficial for me to attend PREVIEW with my student, and I would recommend it to others."
Fall and Spring Orientation	First-time Freshmen or Transfer Students: Limited orientation for students who have not participated in orientation prior to the beginning of the semester	Beginning of fall semester; beginning of spring semester	Spring 2003: 165 students; Fall 2003: 393 students	No data available.
International Student Orientation	New International Students: pre-arrival information, and information sessions on campus	Beginning of fall and spring semesters	Approximately 400 students	No data available.
Next Step Orientation	New Transfer Students:	Spring and Summer	1,088 new transfer students and 428 guests	Approximately 55.2% of those attending enrolled in fall classes.

Integration

In addition to welcoming students through orientation, efforts continue to actively assimilate them into the campus communities and mentor them through the process of acquiring an education.

Entry-Level Assessment and Placement

To facilitate integration of students into the proper courses, all first-year students must take the Composition Placement Examination and the Mathematics Placement Examination unless they have scored at high levels on Advanced Placement examinations or have completed college level courses elsewhere. A Foreign Language Placement Examination is also provided for students who took language courses in high school and intend to continue studying the same language at CSU.

Procedures for evaluating the Composition Placement Examination are fashioned after the Educational Testing Service's design for the Advanced Placement program. Approximately 10-15% of students taking the Composition Placement Examination are inadequately prepared to enroll in the AUCC composition course (COCC150). Since CCHE does not permit CSU to offer remedial courses, placement of low scoring students is restricted to less advanced college-level courses (CO130 or CO192). CSU has reduced the heterogeneity of the introductory classes in terms of writing skill levels and, as a result, has been able to target instruction at appropriate levels.

The Department of Mathematics has designed its own two-tiered assessment process, consisting of a Mathematics Placement Examination that can be taken only twice for placement purposes, and an Entry Level Examination that can be taken multiple times to gain entry to college-level courses. The Mathematics Placement Examination was updated in 2003 to correspond with pedagogical changes.

As technology has been incorporated into the student learning experience, concerns about students' technology proficiency arose. In response, OIS designed the Computer Skills Assessment Survey to determine the technology skills of CSU's incoming freshman. The survey was distributed to all the First Year Seminar classes in the fall of 2001 (enrollment totaled 3,904 students with a 54% response rate). Most students reported having basic technology skills <www.ois.colostate.edu/computer_literacy_survey/fcsurvey.htm>, but having difficulty applying these skills to higher education tasks. Further assessment of both incoming and graduating students is planned to monitor progress and guide the development of intervention strategies.

Academic Advising

Academic advisors within the departments and colleges, CASA, and the Career Center assist students in moving toward an appropriate choice of major and plan of study. Non-declared majors often participate in University Open-Option advising at CASA. Pre-professional advising is also provided by CASA through advisors from the former Life Sciences Center. Generally, faculty members are responsible for advising undergraduate students within specific majors. Individual colleges and departments assess faculty advising, often as part of their graduating senior exit surveys.

CASA represents a new advising paradigm starting Fall 2003. While advisors in CASA are generalists, they also are becoming specialists in particular themes. Advisors in thematic areas are expected to build strong relationships with departments and colleges so that they can better understand the various academic programs that are included within six themes: Agricultural and Natural Resources; Arts and Humanities-Communication-Design; Business-

Organizational Management; Engineering-Physical and Mathematical Sciences; Health and Life Sciences; and Human and Social Sciences.

Open-Options

CSU has developed an effective academic support base for students who do not immediately find an academic "home." Advising is available to all students not declaring a major, those seeking admission into programs, provisionally admitted to the University, or participating in continuing education and space available registration programs. The two largest undergraduate registration categories on campus are actually programs for students who are in the process of selecting a major: University Open-Option and Open-Option Seeking Business (for students seeking admission into programs in COB). Many other students enroll in open-option registration categories that are available within most colleges, for example, Liberal Arts Open-Option and Natural Sciences Open-Option. In choosing to allow undecided students the opportunity to explore majors during their first two years, the University is responding to the developmental realities of students: many are not yet prepared to settle on majors. However, program majors can provide academic "homes" for students and may strengthen the students' sense of integration with the campus.

The average 5-year graduation rates for the last five cohorts show that students in the University Open-Option graduate at rates within the range of declared majors in the colleges. Students appear to be satisfied with their advising while in the University Open-Option. A focus group study conducted in Spring 2003 concluded that students found University Open-Option advising to be "an integral tool to discovering their college path to graduation. Most advisers are considerate, always willing to help, and available to students." There is further need for assessment of the advising system to determine whether the system provides the best possible assistance to students who are exploring and choosing appropriate majors. The provision for open-option registration has implications for enrollment management decisions and resource allocations as well as the educational success of students.

Pre-Professional Advising

The University provides pre-professional advising, including pre-law, pre-veterinary medicine, pre-medicine, and several other life sciences areas, to assist students in making successful transitions to professional programs. Rates of admission to medical schools in 2002 indicated that a majority of the applicants who received pre-professional advising from the former Center for Life Sciences were admitted to medical schools, while only 36% of applicants not advised by the Center were admitted (*Center for Life Sciences End of Semester Report*, Fall 2002). The data provide impetus for efforts to encourage more pre-medical students to use CASA for pre-professional advising.
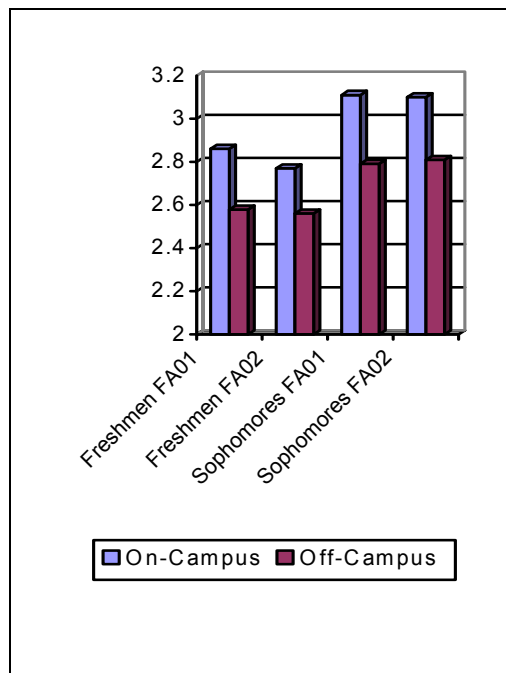
Living and Learning Communities

Requiring freshmen students to reside on campus during their first year at the University is based on evidence showing that this practice facilitates transition to academic life. Students who reside on campus consistently earn higher GPAs than students who live off-campus (Figure 7-1). This finding is consistent for all classes (freshmen through seniors) and over many years.

Residence Life is a committed academic partner, offering a variety of support services. Residence halls at CSU are created to be comfortable and friendly with knowledgeable and well-trained staff. At CSU, students can choose to live on a floor with other students who share common interests, known as Living and Learning Communities (LLC). Some of the options that are designed to be academic or co-curricular in their focus include Equine and Agricultural Sciences, Engineering, Leadership, Personal Computer, Pre-Veterinary Medicine, Substance-Free, Wellness, and All Women's Floor. These living units often provide students with activities and resources as well as faculty and staff advisors who provide information about the many opportunities available at the University. The three flagship LLCs that have several years of experience are the Key Academic Community, Ingersoll Residential College for Natural Sciences, and the Honors LLC.

Figure 7-1. Student GPA on-campus versus off-campus.

The **Key Academic Success Community** is designed to increase retention and academic performance, particularly for students who are ethnic minority, non-resident, or who have low Admissions Index scores. Begun five years ago, the program intentionally over represents students of color and nonresident students, who comprise 51% and 29%, respectively, of the Key population, and serves approximately 188 students per year. Assessment of the first four years' student cohorts of new freshmen indicates that the program is producing positive retention and academic performance outcomes for two high priority student groups: minority students and non-resident students, controlling for Admissions Index. Surveys indicate an exceptional level of student satisfaction with the Key program and the way in which it assists them in focusing on academics and campus engagement.

Several colleges, such as CNS and COE, have experimented with residential colleges (students with similar majors living on the same floors), developing a sense of community around students' academic interests and encouraging faculty/student interaction in the residence hall with a wide variety of supplementary and enrichment academic experiences. In Allison Hall, tutors and computers are available to support the academic success of

Engineering students. These students tend to take many classes as cohorts. The Ingersoll Residential College for Natural Sciences students demonstrated positive outcomes (persistence and academic performance) in its first year of assessment and mixed results subsequently. Another round of assessment is currently underway. It provides tutorial assistance for most science and mathematics courses taken by science majors in the freshmen through junior years. More than 800 students per semester participated in approximately 2,800 tutoring sessions in AY02.

A unique feature of the **University Honors Program** is the Honors LLC located in Newsom residence hall. In addition to housing more than half of the Honors first-year students, the Honors LLC is home to the University Honors Program office, two Honors seminar rooms, and the Honors study lounge. Honors Resident Assistants live on each of the Honors floors, and Honors faculty mentors and peer mentors teach classes in the residence hall. Many special events take place in the Honors LLC, including the Faculty Fireside program where faculty members join students for dinner and discussion, peer advising sessions, social activities, and Honors Student Association meetings. As strong partners in the residential aspect of LLCs, Housing and the University Honors Program Director are currently planning for a new residence hall that will be designed specifically to support program objectives.

Quality of Residence Life Programs

With many of CSU's students residing on-campus in residence halls, assessment using the Association of College and University Housing Officers – International / Educational Benchmarking, Inc. (ACUHO-I/EBI) Benchmarking Project survey shows that student satisfaction with the residence halls' social and cultural activities rose for four consecutive years, including all educational programs and athletic activities. The 2002 ACUHO-I/EBI survey of 500 students indicated a very high satisfaction rating of students' overall "academic experience" on the CSU campus, ranking first among its six EBI peers and ranking third among the 67 participating Carnegie Doctoral/Research Universities-Extensive institutions. Residence Life has developed multiple strategies to improve the study environment for students, including (1) constructing additional residence hall space in 2003, (2) reducing the student to RA ratio from 48:1 to 24:1 by hiring 22 additional RAs, and (3) adding RA training components related to noise reduction, study atmosphere, and civility issues.

Student Support Services and Programs

A wide range of services and campus organizations enhance student learning by extending the educational experience to non-classroom settings and incorporating important

educational elements into their activities. Primarily through DSA, the University offers services (e.g., advising, tutoring, counseling services, advocacy programs, and residential learning communities) to create a campus environment that fully engages students in the development of their unique potential. In this section, selected units are described to demonstrate CSU's effectiveness in supporting the learning environment. Many student support services and programs are described as resources in Chapter 6 or as part of building community and character in Chapter 12.

Advocacy for Underrepresented Student Groups

Accomplishments in fulfillment of goals for supporting students in underrepresented groups, which are established in the University Diversity Plan, are described in detail in Chapter 12. Advocacy programs which include Asian/Pacific American Student Services; Black Student Services; El Centro Student Services; Native American Student Services; Gay, Lesbian, Bisexual, and Transgender Student Services; and Women's Programs and Studies provide a welcoming environment and transition programs for newly enrolled students. The offices create, coordinate, and collaborate with other campus and community groups to implement a variety of educational and cultural activities to improve the campus climate.

Non-Traditional Student Support

In Fall 2003, approximately 17% of the undergraduate student body was considered non-traditional, according to the University's definition - students age 23 or older. The office of Off-Campus Student Services/Resources for Adult Learners (OCSS/RAL) (a unit within DSA) assists non-traditional students in their transition to university life by providing a number of services including orientation to the University; connections to other adult learners through regular programming; childcare, financial aid, and scholarship information and referral; and information on services both on- and off-campus that can help support them through degree completion.

OCSS/RAL has had significant success in helping students build connections through programming efforts, resulting in a 21% increase in overall attendance by students at sponsored events from FY02 to FY03. Unmet needs have been identified, including greater access to on-campus childcare information and earlier contact with an on-campus support person to assist in navigating the University system.

Resources for Disabled Students

CSU provides a welcoming environment for students who identify themselves as disabled. As these students use services of the Resources for Disabled Students unit for assistance, they are better able to achieve their academic goals. The total number of students

self-identified as having a disability has grown by over 175 students over the last five years, from 550 in FY99 to 728 in FY03, 64% of whom use support services for accommodations, counseling and advocacy. The percentage of students with learning disabilities who remain in good standing (GPA 2.0 and above) averaged 86% over the last five years in comparison to 92% of all students with other disabilities who remain in good standing. The Assistive Technology Resource Center assures equal access to technology and electronic information for students with disabilities, primarily through the use of adapted computing.

Counseling Services

The University Counseling Center is a comprehensive mental health agency that strives to assist students in acquiring the skills, attitudes, and resources necessary to both succeed in the college environment and pursue satisfying and productive lives. Each year, the Center reaches approximately 13,000 students with presentations and workshops during the academic year and provides approximately 4,600 individual counseling appointments. The Learning Assistance Center, a division of the University Counseling Center, served 1,292 students in FY03 who were having academic difficulties, were not earning the grades they think they deserve, were placed on academic probation, or believed that they might have a learning disability. Working to meet the individual needs of each student, the Learning Assistance Center helps determine if a learning disability is contributing to academic problems, designs methods of coping with those problems, and implements new strategies in areas such as textbook reading, note taking, time management, and test preparation.

Support Embedded in Scholarships

CSU has structured certain student financial award programs so that support for students' transitions to the University is an integral part of the award. Embedded support services include a requirement that students attend orientation programs and participate in advising sessions that carefully devise academic plans. Staff reviews mid-semester grades and contact students with academic performance deficiencies (Early Warning Program). The First Generation Award (neither parent has earned a bachelor's degree), for example, not only attracts ethnically diverse students to the University (the yield rate for students offered the award is over 90%, compared to 52% for all resident students) but also appears to affect retention rates. All students in the First Generation Award Program show financial need at the time of entry, and approximately 80% are ethnic/racial minorities. Despite obstacles posed by this combination of factors, students in the First Generation Award Program have been retained at rates nearly equal to or exceeding the University five-year retention rate in seven of the fourteen cohorts of entering freshmen (*Annual Report on the First Generation Award Program to the Board of Governors,* 2002). Services to Governor's Opportunity Scholarship

and Daniels Fund Scholarship students have been similarly structured. Students in these programs are retained at higher rates than similar students at the University (*Undergraduate Student Retention: Organizational Snapshot,* 2002).

Career Support Services

Another important transition occurs as students approach graduation and enter the job market. The Career Center (a unit within DSA) provides career exploration, planning, and job/internship search services for students ranging across all majors and colleges. The organization of CSU's Career Center provides a unique linkage between Student Affairs and Academic Affairs through a liaison organizational model. The centralized Career Center is staffed by generalist counselors who work primarily with open-option students and students looking to change majors. A specialized career counselor is housed in six of the eight colleges with shared funding by the college and the Career Center. While these counselors are part of the Career Center staff, they also develop close working relationships with academic faculty. This unique liaison model provides effective career support services to the students.

While the number of individual student career counseling visits has remained steady since FY98, the number of students assisted via Career Center presentations and website usage has risen dramatically. Student presentation attendance has increased from less than 5000 in 1998 to over 25,000 in 2002, and website hits increased from less than 5,000 per day in 1999 to nearly 30,000 per day in 2002. Presentations made by the Career Center in First Year Seminars were rated high for providing beneficial information to the students. Placement results are discussed on page 7.37.

Indicators of Successful Transitions

All of these programs demonstrate the commitment that CSU has made to provide financial, social, and academic support for students in the environment of a large University campus. Providing a successful transition and a sense of community are important contributors to an overall positive undergraduate experience. Multiple assessments have been made to evaluate the institution's progress in successfully transitioning students through their higher education experiences.

Early Measures

The **Undergraduate Student Retention Office** initiated an Early Warning Program in Fall 2000 to identify students who may be having difficulty as early as possible to provide appropriate resources and active intervention. Every student identified through the early warning system is contacted and invited to meet with a designated advisor. The advisor assists the student in diagnosing the sources of difficulty, refers the student to available resources,

and monitors subsequent progress. The program employed the Noel-Levitz *College Student Inventory* as a means of gauging students' needs and the likelihood of academic difficulty and university withdrawal.

On the basis of this evaluation, the program was revised for Fall 2002. In most areas, students appear to be adjusting well; i.e., feeling comfortable on campus, feeling the transition is going smoothly, making friends in the residence hall, having good relationships with roommates, finding people with helpful information, adapting to residence hall life, and finding places to study. This project was continued in Fall 2003 under the auspices of CASA.

Retention and Persistence Rates

First-year student retention rate (rate of return of first-year students to the second fall) is one measure of successful transition and integration. Over the last five years, the first-year student retention rate has averaged 81.6% (*The Freshmen Retention Study, Semester by Semester Persistence*, 2002; <www.colostate.edu/Depts/OBIA/pdf/retention/semester.pdf>). The CCHE QIS compared first-year student retention rates at CSU to a national benchmark range representing the rates at similar institutions. The December 2002 *Quality Indicator System Report* <www.state.co.us/cche/agenda/agenda03/jan03/jan03via-atta.pdf> indicated that CSU freshmen retention and persistence rates were 82.5%, 83.1% and 81.9% for the cohort of students entering in Fall of 1998, 1999 and 2000, respectively, which were within the benchmark range of 80.8-84.8%. For the minority cohort of students, rates were 81.5%, 80.4% and 81.3% for 1998, 1999 and 2000, respectively, which were at the upper end of the benchmark range of 77.4-81.4%.

Persistence rates reflect the number of students graduated and/or enrolled each semester as a percentage of the original entering class. For example, persistence in the 6th Fall includes those who graduated and those who have not yet completed a degree, but are still enrolled. Students who have been dismissed, but are still enrolled in classes through DCE (cash-funded students) are not counted as persisting students. Six-year persistence rates for students entering in the early 1990s increased substantially from those of the late 1980s, achieving a six percentage point increase. Recent persistence at CSU has been relatively stable when comparing 1992 baseline data with the latest figures.

OBIA has tracked institutional retention rates systematically for many years (*Freshman Retention Study*, 2001). Its analyses show that retention rates vary by a number of factors. Retention rates increase as Admissions Index scores increase, and increased persistence is generally associated with higher GPAs. However, 50% of those who left the University from the class of 1996 had a GPA of 2.5 or higher, and 69% of those who left did so in good academic standing. It appears that while a higher GPA generally predicts higher persistence, students leave the University from across the range of academic performance

levels. Students leaving the University tend to make the decision early in their academic careers and for a variety of reasons unrelated to academic success. Open-Option (undeclared majors) retention data is discussed on page 7.6.

In designing retention strategies, the University has been attentive to these patterns. The institution has focused on issues of how students come to the campus, as well as how well they engage with the academic and social fabric of the campus in their first semesters. Relatively high rates of completion and persistence compared to benchmarks demonstrate that CSU students are making successful transitions from high school to college academic life. The structured transition strategies that help students persist are generally applied by DSA units and academic programs to present a welcoming, engaging, and diverse learning environment for students. In turn, the effectiveness of the learning environment and the quality of educational programming, as described in the next section, also contribute to the strong persistence rates for CSU students.

Focus on Program-Level Retention

In an attempt to refine the focus and analysis of retention data to develop more specific interventions, OBIA, in coordination with the Undergraduate Student Retention Office (now part of CASA), produced academic program (department-level) retention data reports in FY02. These data enabled department leaders to examine patterns of retention and departure for students who entered the University in their majors. In response to the data, departmental retention plans for increasing student persistence were developed for each of the majors. This planning initiative was designed to localize retention efforts at the department level, the point at which students connect to their major field of study.

Engaging Students in the Learning Environment

The concept of a learning environment is necessarily broad, particularly within a comprehensive research university context, and involves instructional, physical, intellectual, and social components. Several of the critical resources dedicated to the learning environment at CSU are described in Chapter 6. In this section, the effectiveness of engaging students in the learning environment is reviewed.

Creating the Learning Environment

Although all components of the University community are inextricably related to creating the learning environment, this discussion focuses on some of the key components such as scholarly teachers, physical and organizational support (described in Chapter 6), rigorous and relevant curricula, intellectual interactions, a diverse environment for intellectual interactions, and an assessment process for continuous program improvement.

A Community of Scholarly Teachers

The *AF&AP Manual* defines teaching in section E.12.1 (quoted in part) as follows:

Teaching involves the systematic transmission of knowledge and skills and the creation of opportunities for learning; advising facilitates student academic and professional development. As part of its mission, the University is dedicated to undergraduate, graduate, professional, and continuing education locally, nationally, and internationally.

Teaching includes but is not limited to classroom and/or laboratory instruction; individual tutoring; supervision and instruction of student researchers; clinical teaching; field work supervision and training; preparation and supervision of teaching assistants; service learning; outreach; and other activities that organize and disseminate knowledge. Faculty supervision or guidance of students in recognized academic pursuits that do not confer any University credit also is considered teaching. Associated teaching activities include class preparation; grading; laboratory or equipment maintenance; preparation and funding of proposals to improve instruction; attendance at workshops on teaching improvement; and planning of curricula and courses of study. Outreach activities such as service learning, conducting workshops, seminars, and consultations, and the preparation of educational materials for those purposes, should be considered as teaching. Scholarly inquiry, essential for maintaining currency and competency in a given field, is also an aspect of teaching.

Over the past decade, the University has continued to strengthen its commitment to developing a community of scholarly teachers. Three important components contributing to the University's pursuit of excellence in teaching are the processes for recognizing and rewarding excellent teaching; services to support teaching and the professional development of faculty; and individual professionalism whereby faculty members are strongly motivated to continuously improve the learning environment.

Recognizing and Rewarding Teaching Excellence

The annual faculty performance evaluation requires that each individual set goals for teaching in the coming year. Teaching effectiveness is evaluated at various stages of the promotion and tenure review process, as described in Chapters 3 and 6. Department codes establish the mechanisms and standards that are used to evaluate teaching. Annual performance evaluations are required and serve as the basis for merit salary increases.

To recognize sustained and significant contributions to teaching and learning at the University, awards have been created at the department, college, university and governing board levels. Examples include the Alumni Association's Best Teacher Award, the Jack E. Cermak Advising Award, the Provost's N. Preston Davis Award for Instructional Innovation, and the BOGCSUS Excellence in Undergraduate Teaching Award. Many departments, colleges, and programs recognize excellent teachers through a combination of awards that they have created and awards available through student organizations, public constituencies and professional organizations. While internal awards demonstrate that the University values

excellent teaching and wishes to recognize and reward it, external awards are independent acknowledgment that CSU faculty members excel in teaching.

In 1999, the University established the UDTS award. Appointment as a UDTS constitutes the University's highest recognition of excellence in teaching, acknowledging senior faculty members who have distinguished themselves as both scholars and teachers. A maximum of 12 faculty can hold this title, which is awarded for the duration of their association with the University. The award includes a $7,500 increase in salary and a $2,500 annual stipend for three years to pursue instructional improvement and innovative projects. Presently, of the 12 UDTSs, four are from CLA, three from CNS, two each from CNR and CAHS and one from CVMBS. The Provost has redirected a small pool of funds in FY04 for use by the UDTSs, as a body, to explore ways to continue to enhance the learning experience of students. Starting in Fall 2003, a lecture series by the UDTSs is being offered to promote scholarly teaching.

Teaching Support Services

The Faculty Council Committee on Teaching and Learning routinely addresses a range of issues related to teaching and learning, including advising, registration and admissions, grading assessment, teaching evaluation, and related curricular issues. Over the past five years, the committee supported the establishment of a community of teacher-scholars (UDTS); revised the Student Course Survey; initiated changes in the evaluation of teaching in tenure and promotion reviews by proposing that peer feedback and/or review be added to the list of strategies in existing University policy for assessing performance; and proposed a certificate in postsecondary instruction for nine credits of graduate coursework and experiences for teaching assistants, nontenure-track faculty, and tenure-track faculty.

The Writing-Across-the-Curriculum Program conducts faculty development workshops that help instructors integrate writing into First Year Seminars, courses sponsored by the University Honors Program, and courses in many disciplines. In Fall 2002, the program led 47 workshops for faculty from more than 20 disciplines. Also assisting faculty/staff development, the Office of International Programs acquired new grant funding from the US Department of Education to further internationalize the undergraduate curriculum. The grant includes faculty development components such as an annual faculty seminar.

Of course, individual college and department efforts add to the university-wide faculty development activities. From the beginning of every faculty member's tenure at CSU, there is support for the development of competency in teaching. For example, the PVM program received a CCHE Program of Excellence award of $850,000 in enhancement funds over a 5-year period to assist faculty with the integration of information technologies into courses at all levels in the college.

Outstanding Faculty

The undergraduate learning environment is enriched by the presence of a very distinguished and professional faculty involved in the breadth and depth of scholarship in teaching, research, and outreach, as expected at a land-grant university. In addition to campus recognition of UDTSs, UDPs and Endowed Chairs and Professorships, faculty members are well known, respected figures nationally and internationally as evidenced by being widely published and selected to serve as officers of national and international professional organizations and editorial boards. Evidence of individual faculty awards in teaching, research, and outreach abound and are listed in academic program reviews, department annual reports, and university media releases. Research, creative scholarship, and artistry accomplishments are highlighted in Chapter 9 of this report. These productive faculty members are able to add firsthand experience and applications of knowledge to enhance the learning environment.

Many faculty members join the university community to fulfill personal goals of mentoring the next generation of scholars. As a consequence of their enthusiasm for teaching, they invest time and effort well beyond the minimum requirements of their positions to revise and update their instructional materials, develop new courses and teaching techniques, integrate service learning, conduct surveys of teaching effectiveness, etc. For example, within the past decade most courses have been updated with technological enhancements using computers, presentation applications, and Internet accessible resources. Faculty members, both on their own and in cooperation with campus resources, have made numerous improvements in the learning environment. By working with OIS and using WebCT, they have created online learning communities and provided access to additional learning resources. Through interactions with the Service Learning and Volunteer Programs, they have added service learning components to courses. Based on feedback from students and participation in professional seminars on improving the learning environment, they continue to improve the learning environment.

Faculty members in several disciplines have chosen to exercise their freedom of inquiry to establish creative scholarship goals that focus on the learning environment and result in published studies on learning and assessment research. In some cases, these efforts have grown into ongoing activities and the establishment of units such as the Center for Science, Mathematics, and Technology Education; the Center for Research on Writing and Communication Technologies; and the Research and Development Center for the Advancement of Student Learning. Most of these units extend the campus through outreach activities described in more detail in Chapter 10.

Rigorous and Relevant Programs of Study

Programs of study, designed to meet the growing and diverse needs of the University's constituencies within the scope of the University's mission, are essential components of the learning environment. The programs of study, and the courses in those programs, are clearly defined, coherent, and intellectually rigorous. Systematic processes have been established in policy for faculty control of academic requirements and the initiation of new programs and courses. Recently, the faculty designed and adopted a carefully conceived and managed set of learning objectives for all undergraduate students, known as the AUCC, to create civic-minded citizens, actively engage students in learning, and provide students with capstone experiences. CSU offers a variety of undergraduate degrees in 66 fields of study (listed in the BID forms, Appendix A), allowing undergraduates to pursue majors, minors, concentrations, options and ISPs. These formal programs of study enable students to pursue their individual academic interests within an identifiable and coherent undergraduate program that includes a general education component. The University Honors Program is offered to challenge and enrich the learning environment for academically talented undergraduate students.

Curriculum Design and Approval Processes

CSU's *Curricular Policies and Procedures Handbook* <www.colostate.edu/Orgs/ucc/handbook/handbook02.PDF> outlines the processes for programmatic and organizational change, course approval and modification of existing courses (Table 7-2). It describes the information requirements to assist institutional review and approval for all course proposals, including all major topics and subtopics to be covered; course objectives; proposed texts or resource materials; and methods of assessing students for the purpose of assigning grades. Briefly, the rigorous review pathway for approval of all courses and degree programs includes:

1. The curriculum committee of the originating unit (usually an academic department) must approve all changes or additions, followed by College Curriculum Committee approval.

2. The Committee on Scholarship, Research and Graduate Education must approve all graduate degree changes except an added specialization to an existing degree or a name change of a concentration, minor, option, or interdisciplinary studies program.

3. The University Curriculum Committee (UCC), comprised of a faculty representative from each college, must approve all changes.

4. Faculty Council approval is granted through approval of UCC minutes for additions or deletions of concentrations, minors or options, changes in the name of a specialization in a graduate degree program, name changes in concentrations, minors, options, or interdisciplinary studies programs or

Table 7-2. Routing paths for program and degree changes (August 2003).

	PD	OU	CC	CoSRGE	UCC	FCM	FCSA	BOG	CCHE
Add New Majors/Degree Programs/Departments/Colleges[1]	X	X	X	X^2	X		X^3	X	
Add Plan B to Existing M.S. Degree (Notify Graduate School Dean)		X	X	X	X		X		
Add Specialization to Existing M.S. or Ph.D. Degree		X	X	X	X	X			
Add/Drop Concentration/Minor/Option		X	X		X	X			
Add Interdisciplinary Studies Program		X	X	X^2	X		X		
Change Existing Professional Master's Program (Plan A/B) to Plan C [4]		X	X	X	X		X		
Change Name of Specialization in Graduate Degree Programs		X	X	X	X	X			
Change Name of Concentration/Minor/Option/ Interdisciplinary Studies Program		X	X		X	X			
Change Name of Existing Major/Degree Programs		X	X	X^2	X		X	X	X
Change Degree Requirements		X	X	X^2	X	X			
Change of College Affiliation		X	X	X^2	X		X^3	X	X^5
Change Names/Dissolution, Division or Merger of Existing, Departments or Colleges[1]		X	X	X^2	X		X^3	X	X^5
Drop Degree Program		X	X	X^2	X		X	X	X
Drop Interdisciplinary Studies Program		X	X	X^2	X	X			

Note: Policies requiring approval by committees in addition to UCC must first be submitted through the Faculty Council office.
Policies approved by the UCC are reviewed by the Executive Committee of Faculty Council before being sent to Faculty Council for consideration, and the Cabinet, if BOG approval is required. It is possible that these committees may request to have a proposal reconsidered by the UCC or Faculty Council.
<u>Abbreviations and notes</u> PD = Prior discussion of planning proposal by CCHE staff required OU = Originating Unit CC = College Curriculum Committee CoSRGE = Committee on Scholarship, Research & Graduate Education UCC = University Curriculum Committee FCM = Faculty Council approval through the UCC minutes FCSA = Requiring Special Action by Faculty Council BOG = Board of Governors of the CSU System CCHE = Colorado Commission on Higher Education [1] = Approval by Strategic & Financial Planning Committee [2] = Only if Graduate Program [3] = May involve <u>Code</u> change (through Committee on Faculty Governance) [4] = Refers to change of an existing graduate degree other than M.S. or M.A. degrees [5] = Notification Only New Program, as defined by CCHE, is "any new curriculum that would lead to a new vocational or academic degree."

changes in degree requirements. All other changes require special action by Faculty Council.

5. CCHE reviews new major/degree programs or added specialization to an existing MS or PhD.

6.   The Board must approve the addition of new majors or degree programs, name changes of existing majors or degree programs, or the dropping of a degree program.

Qualified faculty members are assigned responsibility for each course and are expected to continuously review and improve courses. When changes are indicated, approval may be required at the department, college, UCC, and Faculty Council levels. The learning objectives for courses are established without regard to method of delivery to students. The UCC also conducts periodic reviews of course enrollment to determine those courses that have not been taught during the past three years. Departments are asked for a written justification for those that are to be retained. The UCC then acts to either retain or drop the courses under review.

The course and program approval process is further scrutinized and validated through the academic program review process, which is described in Chapter 11. Past reviews demonstrate that this process evaluates and comments on the rigor and appropriateness of courses in programs (e.g., Equine Science, 1991-1997); and currency, duplication, and focus of curricula (e.g., SOE, 1991-1997). Many programs also undergo specialized accreditation reviews that evaluate the effectiveness of curricula.

When courses deliver one-third or more of the primary/essential course content in other than a face-to-face setting, they are designated as nontraditional delivery. Approval for nontraditional delivery requires special application and review by the UCC. The nontraditional delivery method should have no adverse outcome on the course quality or student learning outcomes relative to a traditional form of the same or similar course. For online distance courses, OIS and DCE work with faculty to assure they have followed the process of curriculum approval through the department, college, and university curriculum committees. In accordance with CCHE policies, all degree programs that are offered utilizing distance delivery are also offered on-campus. In addition, online programs must have equivalent rigor, admissions requirements and instructor qualifications as the resident offerings. Because these processes assure that educational programs and courses offered by CSU are clearly defined, coherent, and intellectually rigorous, without regard to the medium of delivery, there is no designation of delivery method(s) for any course or program on the official transcript.

A uniform AUCC course proposal process includes careful attention to the content of courses offered by the University. The multiple levels of review assure that a wide range of University constituencies are involved in the development of new courses and in modifications to existing courses. As a result, the decision to propose new courses or to make modifications to existing courses is one that is carefully considered by the faculty members involved. Once approved, courses are expected to be funded at the Department level and

offered. Consequently, administrators are also involved in decisions related to offering and scheduling courses. Discussions during course review processes at the department, college, and university levels increase the awareness of teaching practices and content across departmental boundaries and support interdisciplinary discussion of the teaching mission of the University, the methodologies used in various units of the University, and the content of courses across the University.

General Education: All-University Core Curriculum

University faculty participated in an extensive, multi-year review of the undergraduate general education curriculum to develop CSU's AUCC, as introduced in Chapter 5. Emphasis was placed on an outcomes-based approach with the identification of four components: (1) First Year Seminars, (2) Core Competencies, (3) Foundations and Perspectives, and (4) Depth and Integration. When adopted by the Faculty Council in December 1998, the AUCC was designed to emphasize academic rigor, a shared academic experience, and an assimilation of the skills learned in the core throughout a student's undergraduate program. The AUCC was designed to permit students to choose courses to fulfill requirements, but the AUCC provides greater focus, a deeper commitment to core competencies, and more specific intellectual categories than the former University Studies Program.

The 38-39 credit AUCC was implemented in Fall 2000. The AUCC: (1) provides a focus on learner outcomes in addition to course content; (2) emphasizes life long learning to supplement knowledge in a discipline; and (3) integrates core themes throughout a student's entire program of undergraduate study. Therefore, all CSU undergraduate students share a learning experience in common, and faculty from across the University contribute to that experience. Each baccalaureate program of study must incorporate each of the following categories of the AUCC as described in detail in the *General Catalog*.

The AUCC includes a special focus on small size classes for first-time freshmen and new transfer students with fewer than 25 credits – the **First Year Seminar**. This special feature of the undergraduate experience re-emphasizes the commitment to excellence at CSU in a way that is not usually found in the undergraduate experience at major research universities. The objective of the First Year Seminar requirement is to engage students intellectually through rigorous academic study in small-class or group settings and to connect them to faculty, other students, and the University. Courses designed to achieve this objective may have many forms. In the face of budget challenges, the 100-minute small-group requirement was reduced to 50 minutes and the small-group maximum size was increased from 19 to 29 students starting Fall 2003.

The **Core Competencies** include the acquisition and effective practice of fundamental competencies, including the ability to write clearly, speak effectively, understand and apply quantitative reasoning, make sense of abstract ideas, reason analytically, and read critically and with comprehension. Students must complete one course in written communication and an additional course in oral communication, or advanced writing, or a second language. Other Core Competencies include mathematics, logic and critical thinking, and two units of a single foreign language completed either in high school (two years of study) or after admission to the University (two semesters of study).

The **Foundations and Perspectives** requirement includes the Biological/Physical Sciences Requirement, the Arts and Humanities Requirement, the Social and Behavioral Sciences Requirement, the Historical Perspectives Requirement, the Global and Cultural Awareness Requirement, the U.S. Public Values and Institutions Requirement, and the Health and Wellness Requirement. Courses in this category of the AUCC are designed to bring the skills developed in Core Competencies to life and give them direction and purpose.

The goal of the **Depth and Integration** requirement of the AUCC is to assure that all students graduating from CSU continue to develop academic competencies and explore intellectual foundations and perspectives. Each major must designate courses that build upon the core competencies of writing, speaking, and problem solving in an integrative and complementary way. Each major must also designate courses that build upon the foundations of knowledge and intellectual perspectives of that core category in an integrative and complementary way. Every major must require a **capstone** experience at the senior level that consists of a designated course or sequence of courses that offer the opportunity for integration and reflection on students' nearly completed baccalaureate education. The capstone experience is expected to complete the synthesis of the core curriculum with the academic and/or artistic experience of the major and assist the student with the transition into a career pathway or further academic pursuits.

Thus far, implementing the AUCC and assisting continuing students in the transition has been successful. During the first two years, most of the faculty's effort was focused on making sure AUCC-approved courses were available, but challenges have emerged in providing sufficient numbers of course sections for new students in the areas of First Year Seminars; with the Core Competencies, especially in written communication and a second language; and with the Foundations and Perspectives component, especially in the areas of the Arts and Humanities and the Global and Cultural Awareness Requirements. Growing enrollments and shrinking resources make course section availability more difficult and occasionally impact the sequential intent of the AUCC.

The First Year Seminars represent a significant investment of institutional resources, but the effects of the seminars have not been systematically evaluated at the University level.

Colleges and Departments are in the process of evaluating the effectiveness of First Year Seminars. In Fall 2002, Faculty Council dedicated a "Current Issues" discussion to exploring the effectiveness of First Year Seminars. Student survey data presented by CLA were considered to be inconclusive for evaluating effectiveness. There is strong sentiment across campus that outcomes assessment of First Year Seminars is a high priority.

The faculty has established two policies to emphasize the overall importance of the AUCC as an integrated component of students' learning rather than an add-on. An overall GPA requirement of a 2.0 or greater for all courses taken to complete the AUCC requirements is intended to encourage students to think of the AUCC as an important part of the undergraduate experience, integral to being a successful student, and a graduation requirement of the major. A 60-credit ceiling was established, requiring undergraduate students to complete AUCC Core Competencies in composition and mathematics before proceeding further with advanced coursework. This enforcement demonstrates the faculty's commitment, whereby students are expected to develop core competencies and skills before enrolling in courses that assume command and integration of these skills.

Two additional examples demonstrate CSU's successes in accomplishing the general education goals of the AUCC. Both study abroad and service learning experiences contribute to fulfilling the Foundation and Perspectives requirements of the AUCC.
Many the faculty members have played central roles in enhancing the global awareness emphasis in the curriculum in fulfillment of the AUCC Global and Cultural Awareness requirement. These efforts also respond to University internationalism values and the faculty's own analysis that students were not adequately knowledgeable about or prepared for careers and life in an increasingly global marketplace and world community. Courses have been developed with international perspectives, and colleges have hired a number of faculty members with international backgrounds and specializations. Faculty members, often working with the Office of International Programs and others, provide on-campus programs to increase international understanding. Participation in Study Abroad programs has increased from 151 students abroad in FY95 to 491 in FY02 (9.6% participation), and the numbers continue to increase. National Open Doors statistics published by the Institute for International Education (2002) estimate that 9.2% of CSU graduates in 2001 had participated in study abroad during their undergraduate studies (Table 7-3).

Faculty members utilize the Service Integration Project in efforts to advance an academic culture that prepares students not only to make a living but also live a life. Faculty members work with students to provide them with opportunities for applying their academic knowledge to help solve real-world problems and lead reflective and socially-conscious lives. A comparison with service learning programs at the University's peer institutions demonstrates its success with engaging students, faculty, and community (Table 7-4).

*Program Changes to
Enhance Learning*

As a land-grant University, CSU has a special responsibility to constantly examine the relevance of its academic programs to assure that it is meeting institutional, student and societal needs. The University community is actively involved in ongoing discussions regarding many additional options for program creation, deletion or adjustment. Clearly, this process forces choices relative to programs of highest priority and programs of lower priority as the issues that face society continue to become more complex. Nowhere are the problems more complex or more multidisciplinary than at the interface of the environment, agriculture, our natural resources, and the growth of society. As a result, a variety of programs have evolved by breaking down organizational barriers and fostering interdisciplinary approaches to problems. A few examples of program changes are discussed in this section to demonstrate how CSU has successfully created excellent programs of study as part of the overall learning environment.

Table 7-3. Student participation in study abroad programs compared to peer institutions.

Institution	Study Abroad Students AY01	Study Abroad Students AY00	Total Number of Undergraduate Degrees Conferred AY00	Estimated % Participation in Study Abroad
Iowa State University	928	1,003	5,134	18.1%
University of Nebraska- L	486	412	4,175	11.6%
North Carolina State Univ.	523	442	5,442	9.6%
Colorado State University	**457**	**376**	**4,983**	**9.2%**
Oklahoma State University	339	291	4,001	8.5%
Oregon State University	191	204	3,386	5.6%
Washington State University	232	308	4,637	5.0%
Kansas State University	n/a	n/a	4,115	n/a

Table 7-4. Peer comparison data for service learning activities in FY02.

University	No. of Classes	No. of Students Enrolled	No. of Faculty Teaching
Colorado State University	**138**	**3909**	**84**
University of Missouri - Columbia	80	2000	50
Michigan State University	90	1900	75
Virginia Polytechnic Institute and State University	49	1400	38
Ohio State University	40	1300	50
Washington State University	30	800	30
North Carolina State University	15	350	15
Purdue University	65	n/a	n/a
Oklahoma State University	20	n/a	n/a

The CAS has used program reviews, advisory groups' and students' feedback to improve student learning and modify curricula at both the department and college levels. Programs with consistent low enrollment have been or are being dropped (majors in Bio-Agricultural Sciences and Pest Management, Farm and Ranch Management, and the concentration in Agricultural Education-Extension). Three formal double majors have been developed in the agricultural sciences and agricultural business in recognition of the increasing importance of economics, management, marketing and public policy in virtually any agricultural occupation. A possible difficulty in placing graduates from the Equine Science major was addressed by implementing a formal double major with Agricultural Business to broaden the employment opportunities for students in Equine Science. Agricultural Business/Animal Sciences and Agricultural Business/Soil and Crop Sciences

were developed to enhance student preparation for increasingly sophisticated agricultural industries.

In the COE, the undergraduate programs continue to find new ways to accommodate the shifting demands of society. For example, an ISP was recently created in Biomedical Engineering. This program builds on strengths from within the college and other colleges in the university such as CVMBS to create a unique program. Through both careful review of the engineering environment and consultation with advisory boards, globalization of engineering work has been identified as an emerging challenge. To respond to this need, the college is proceeding with a plan to create a new engineering science degree in International Engineering.

The COB has implemented a series of curriculum changes since 1996 to better serve the needs of both its majors and students in other degree programs. The concentrations in human resource management and production/operations management and options in the accounting concentration were eliminated. The core course requirement in marketing was reduced to allow student elective opportunities. The business communication course was reduced from four to three credits, allowing additional re-deployment of management faculty resources, while increasing the communications components in all COB core courses. All courses have incorporated an increased use of technology to better prepare students to enter the corporate world, including college-wide utilization of the common MS Office suite of products. Students also have access to and gain hands-on experience with the Bloomberg financial database, Research Insights (COMPUSTAT), CRISP tapes, and JD Edwards's One World ERP software. In response to requests by current students, the college put in place six concentrations to enable interested students to focus their study, thereby increasing their marketability. To meet the business course needs of other degree programs, a special series of courses was designed to provide non-business students a basic understanding of important business concepts, resulting in a strengthening of relationships across the campus and alleviation of student backlog in required courses.

The CLA responded to requests from the larger community for access to non-traditional delivery of courses, and with assistance from DCE, created an online degree completion program in the social sciences that allows off-campus students to complete an undergraduate degree. In addition, courses ranging from Music Appreciation (MUCC 100) to Political Communication (SP 420) that have content amenable to an online format are being converted to non-traditional delivery.

University Honors Program

The purpose of the University Honors Program is to create a "public ivy" learning environment whereby academically talented undergraduate students are challenged to acquire

a world class education, enjoy the personalized attention typically found at a small college, and benefit from the resources, diversity, and overall academic excellence of a comprehensive research university such as CSU. In 1998, the University Honors Program was named one of the University's top priorities as part of an effort to enliven and enrich the undergraduate learning experience. This designation led to exciting new initiatives such as the Honors Core Curriculum and the Honors Living and Learning Community. Honors seminars and classes range in size from 19 to 25 students. The senior Honors thesis guarantees that all Honors students have the opportunity to perform undergraduate research. Students work one-on-one with faculty mentors to complete original research, creative artistry, or design projects in an area of their choice.

The successes of the University Honors Program is evident in growth of student participation to 850-900 students currently in the program, with many coming from CNS and CLA (26% and 20%, respectively). Retaining and graduating Honors students at higher levels is being realized. Approximately 30% of the entering Honors class completed the Honors Program of studies before recent changes were made. Now the first class admitted to the new program (250 students) is in its third year and 79% remain in the program while another 10% persist at CSU. Surveys of students in the Honors First Year Seminar have provided positive evaluations of the orientation component, and senior exit surveys also provided positive responses regarding the program.

Avenues for Intellectual Interactions

A healthy learning environment requires multiple routes for frequent intellectual interaction between students and faculty, students and students, and students and external communities. Undergraduate students at CSU are provided these opportunities through a variety of course formats, infusion of diversity in the intellectual environment of the curriculum, and access to extracurricular learning opportunities.

Course Formats

Courses are designed in many different formats to accommodate the needs of various disciplines, to meet specific learning objectives (e.g., skill development versus knowledge acquisition), and to address the diversity of students' learning styles. Although most courses are offered in the traditional modes of lecture or laboratory, there is a rich mixture of recitation, independent study, group study, practica, internships, workshops, seminars, and research sections of coursework available in the undergraduate curriculum. Internships, practica, independent study and research courses often serve as the capstone experience of programs. They provide opportunity for the students to join in the discovery and application of knowledge, fulfilling the Depth and Integration requirement of the AUCC.

In addition to traditional face-to-face instruction, the faculty's growing adoption of IIT, such as WebCT, demonstrates its acknowledgement of different learning styles and commitment to provide diverse instructional approaches.

Diversity in the Intellectual Environment

For the University to fulfill its mission of preparing students for careers in all sectors of society, students must come to understand and value the growing cultural and racial diversity of our nation and world. Therefore, diversity in the learning environment is becoming more than providing access (equal educational opportunities) and establishing representation from groups of diverse individuals.

In the Core Curriculum framework, leading to the establishment of the Global and Cultural Awareness category of courses in the AUCC, Faculty Council adopted the following statement on multiculturalism:

> Inclusion of global and multicultural perspectives is an important goal of higher education. Students need to explore the richness and values of commonalities and differences across societies, cultures, and nations. They should be sensitive and responsive to the views and concerns of other people, and should understand how minorities and majorities view each other and how they interact in a society. Knowledge and understanding of the ways in which they are part of a rapidly changing global environment dominated by the internationalization of science, information, culture, business and finance, labor markets, and political events are important to students personally and professionally (Faculty Council, Core Curriculum framework, adopted 3/31/98).

In addition to topics, courses, and programs of study that have been added to the curriculum to study multicultural issues, a strategy of curricular infusion has been adopted in many courses and programs. Multi-cultural curricular infusion is intended to permeate all aspects of the content so graduates will appreciate the diversity of peoples, communities, and ideas, and effectively interact with them in order to become successful leaders in their chosen professions and in society. The University strives to foster a culture in which the creation, dissemination, and application of knowledge can occur with the broad participation of all communities.

Extracurricular Learning Opportunities

The University community provides a rich learning environment for students that extends beyond the traditional boundaries of the classroom. Faculty members engage students through a variety of informal venues. Interactions range from faculty members inviting students into their homes to dining in the residence halls or student center. In addition to the many social interactions, student employment provides learning experiences in the context of job-specific tasks and interpersonal relations. In most chapters of this report, examples are

provided to illustrate how the other purposes of the University contribute to the undergraduate learning environment.

Assessment Processes for Academic Program Improvement

Structure and Philosophy of Assessment

Continuous assessment and improvement of programs is an essential part of the process of creating excellent learning environments. As a land-grant, comprehensive graduate research university, learning outcomes assessment processes have been tailored to provide direct linkages to the institutional mission, college mission and goals, and program purposes and objectives. As a **public land-grant** institution, CSU is accountable to many constituencies, but assessment is viewed as an internal process of continuous program improvement that produces accountability. For maximum benefit, assessment is designed as a continuous process (at least annual cycles), with synchronous activity among programs in contrast to accountability reports that tend to be asynchronous and based on frequently changing, externally defined measurements. As a **comprehensive** institution, assessment processes are designed to focus on genuine program research to improve the quality of each distinct program rather than foster comparability of programs. A systemic approach is designed to accommodate processes for quality improvement issues of the many distinct undergraduate, graduate, research, and outreach programs which requires that measurement processes and assessment objectives be defined at the unit-level. As a **doctoral/research** institution, full-time faculty members readily take primary responsibility for student learning and program evaluation. CSU's outstanding faculty members are nationally and internationally recognized leaders within their respective disciplines, thus they often serve at the consultant-level for academic program development and assessment. Because faculty members control the design and delivery of curricula and oversee the assessment of individual students, faculty engagement in the program improvement research process is a natural evolution of faculty work. They automatically and intuitively assess student learning on a daily basis in the classes they teach. An ongoing challenge is to capture and organize this assessment activity in a systematic process that integrates into program and institutional decision-making processes. As a **learner-centered university**, the student learning outcomes assessment process is committed to authentic assessment of student learning through integration (embedded) into the teaching and learning processes of courses, not constructed as add-ons or after-the-fact processes. Measurements are designed with specificity to identify strengths and weaknesses of programs. Processes for assessment operate in many ways including course-, program- and institution-levels. CSU is designing its student achievement assessment to match its priorities, including successful student transitions, students'

engagement with their education environment, and the effectiveness of student learning offered by educational programs.

Assessment Implementation

The 1994 NCA Evaluation Team reported "Because the University has been working for nearly a decade under a state mandate to assess outcomes, CSU is in many ways ahead of other universities of comparable size in this regard." A set of instruments for assessment of general education had been selected; a part-time director of assessment appointed; and some departments were seriously dedicated to the outcomes assessment process. However, many challenges remained: adequate staffing, refining measures of general education, making assessment an integral part of campus culture and relevant to academics, and recognition and rewards for serious efforts in outcomes assessments. The 1994 Self-Study reported that discipline-based assessment was underway with enough data in 1992 to support programmatic and procedural changes.

When CCHE shifted from accountability reporting to QIS for performance funding in 1995, University administration announced that outcome assessment reports would no longer be collected and reviewed through a systemic process and the assessment director position was not retained. Faculty and departments interpreted these actions as an indication that "assessment" was merely a report-generating process to fulfill accountability requirements. They began drifting away from course-embedded assessments of student learning to more reliance on senior-exit and alumni surveys. Faculty lost faith in the assessment process because they had not observed consistent analysis of assessment results, integration into strategic planning and budget decisions, or support for program improvements as a result of systematic assessment.

As part of the current Self-Study and to inform the newly established Academic Program Assessment and Improvement Committee (APAIC), the Provost requested that colleges provide a summary of their assessment plans and activities in September 2002. Although all colleges reported assessment of student learning outcomes in some form, assessment activities were found to vary in maturity among colleges and departments. The assessment experiences ranged from minimal summative processes for some departments to sophisticated levels of systematic, formative assessment activity. Colleges such as CAHS and COE seemed to be strongly engaged in systematic assessment of student learning at the program level compared to other colleges, such as CNS and CLA. Specialized accreditation and external requirements appeared to drive some colleges to sustain assessment. Perhaps because of the CCHE's prior and ongoing emphasis on undergraduate education in its accountability reporting requirements, most programs did not report systematic assessment processes for graduate programs.

Several examples of "best practices" in assessment were identified through this review:

- The Department of Environmental Health in CVMBS assessed students at multiple points in time (second year, end of internship, graduation, and one year after graduation) and with multiple instruments (pre-test and post-test, portfolios, internship evaluation form, and alumni survey), generating substantive improvements based on its assessment process.

- The COE programs demonstrated how the curriculum is mapped to the assessed student learning objectives. It clearly identified what students were expected to learn and how they should demonstrate the learning outcomes. Connections of assessment to the University's mission and the strategic planning process were clearly indicated.

- The COB reported an assessment program that involves student, alumni, and employer surveys. Two college-wide faculty committees are charged with continuous curriculum review and evaluation, followed by mandatory college faculty review and approval of proposed curriculum changes at both the undergraduate and graduate level. The ultimate goal of the committees is to enhance the quality of the undergraduate and graduate programs and to assure both curricula are addressing key business issues facing local, regional, national, and international businesses.

The ASCSU Student Course Survey is conducted in most courses each semester. It includes questions about faculty performance and serves as a standardized source of evaluations across the University. College-wide and University-wide data summaries for the past three years show high levels of student satisfaction with courses and instructors. Students have access to the results of the surveys online by course with results tabulated for each section or instructor. Many departments ask faculty to submit results of the survey for use in individual performance evaluations and program assessments. Recently, an electronic version of this survey was embedded in WebCT courses for online completion. This change makes the same survey available online for distance education students.

In addition to internal reviews, external specialized accreditation teams [Accreditation Board for Engineering and Technology (ABET), Association to Advance Collegiate Schools of Business International (AACSB), and National Council for Accreditation of Teacher Education (NCATE)] recently reported concerns related to assessment practices in engineering, business and education. For example, the AACSB's May 2002 response to the COB's January 2002 interim report asked for continued reporting on the status of "regular analysis of assessment data and use by the faculty members to evaluate and improve the curriculum and student services."

Although a large amount of information about perceptions of the quality of CSU's programs was collected, consistent use of multiple assessment methods across all programs

with centralized reporting was not in place in 2002. Learning outcomes assessment was not being guided by a university-wide plan; a process was not in place to provide qualitative feedback; and programmatic assessment results and improvements were not being reported to the university community.

Institutional Commitment to Assessment

In place of vacillating assessment processes in response to external designs for assessment and accountability, CSU realized it needed to develop an assessment system of its own. CSU began defining its own assessment process in 1998 when the Board identified "Improving Accountability, Productivity, and Efficiency" as one of its Strategic Areas of Emphasis. At the June 10, 1998 meeting, the board shifted CSU to a new paradigm, making the university a "learner-centered" institution, and provided direction and vision for development of a comprehensive assessment system.

A pilot program of Senior-Year Assessment was developed and reported to the governing board in September 2001. Five departments (English, Mathematics, Mechanical Engineering, Speech Communication, and Social Work) established learning outcomes, identified assessment instruments, and reported the outcomes. These programs relied mostly on surveys of graduating students and alumni to assess perceptions of program outcomes. English and Speech Communication assessment plans included results of course-embedded demonstrations of learning.

The next major step in institutional commitment for developing CSU's own outcomes assessment program was established in the *Annual Update of the USP for FY03* with KS/IP element 1.9: Program Assessment. Periodic assessment, with subsequent programmatic modifications, was identified as an essential component of the enhancement of both academic and service/support programs at the University. In order to meet the demands of resource redirection, the University provided guidelines and procedures for uniform assessment of all University functions and activities. A full-time Director of Assessment was appointed in Fall 2002, in the Office of P/AVP, to oversee programmatic assessment activities and assist each academic and service/support program in developing individual unit assessment plans. Soon thereafter, the Provost appointed the APAIC committee for overseeing program assessment. In mid-fall 2002, APAIC and the Provost endorsed PRISM, which is described in detail in Chapter 11.

The Office of P/AVP has continued to develop infrastructure to support the comprehensive vision for program improvement research, including an online database, faculty and staff training, guidelines for new plan development, and an assessment website. The website housed on the Provost's home page is designed to provide easy access to many information and data resources to facilitate analysis and integration of results into program

improvements. Each program's assessment plan and results are readily available online.

These recent additions of resources and the increased emphasis on direct, formative assessment of student learning have improved the manner in which the information is now treated, exhibiting more respect for the importance of multiple data collections for the purpose of program improvement. In some programs, assessment of student academic achievement still depends on the action of individuals without assurance that activities will continue over time.

The most significant shift for academic assessment in CSU's program improvement history occurred in Spring 2003 when nearly all programs shifted from surveying student perceptions to using "direct assessment" methods, or measurement of student learning demonstrations as their primary assessment. Faculty members are beginning to expand assessment from their classrooms to their programs, designing program assessment plans that drive performance and achieve excellence through regular episodes of learning research. Therefore, the capacity to improve student learning in the future is grounded in current practice.

Progress in Assessing Academic Achievement

Assessment of academic programs is monitored through PRISM's online reporting database. Visual indicators identify program improvement research plans that are keeping pace with reporting requirements. APAIC has developed its own rubric (sample in Table 7-5) to review each academic program according to quality standards developed to assure that all programs are achieving a common threshold of quality (*APAIC Guidelines for Evaluating Academic Program Improvement Research Plans*). The rubric approach offers advantages by establishing clear guidelines for faculty, defining consistent criteria for evaluating standards,

Table 7-5. APAIC rubric component for evaluating learning outcomes research plans.

Program Plan Component	Performance Levels			
	Best Practices	**Well Developed**	**Nearly Developed**	**Under-Developed**
Learning Outcome	Outcome satisfies A,B,C in "Well Developed," AND one of the rubric traits below. 1. The outcome includes learning subcomponents and is extraordinarily well crafted, giving it capacity to inform faculty on curriculum while providing students clear program expectations. 2. The outcome responds to new environmental factors—changes in field or constituent need. 3. The outcome and strategy sections include a method for strengthening the academic preparation of students who perform below the plan's expected levels.	Outcome satisfies A,B,C below. A. Outcome defines general learning outcome and its sub-components. B. Outcome relates to the program's purpose. C. Outcome uses effective language that implies measurability and that students can understand.	Outcome satisfies only two of the three A,B,C traits in "well developed."	Outcome satisfies only one or less of the three A,B, C traits.

and equipping APAIC members to generate uniform comments to programs. APAIC intends to adjust the rubric traits over time to respond to environmental changes and faculty feedback. APAIC shared this rubric with assessment plan contact persons in May 2003.

During Spring 2003, APAIC reviewed 174 program assessment plans. The quality of each plan was evaluated with comments delivered online to individual programs. APAIC identified the "best practices" for learning assessment and research presented by the programs. These "best practices" related to various planning components include cover page information, outcomes, strategies, assessment methods and criterion (Table 7-6). Best practice types are categorized for database searches that the university community can access online. In future reporting cycles, additional best practices will be identified. The first set of best practices was showcased at two university-wide seminars in Spring 2003. Another valuable assessment research tool is the university-wide online sharing of assessment instruments, such as learning rubrics, internship evaluation forms, exit surveys, learning project descriptions, exams, etc.

Table 7-6. APAIC-recognized "Best Practices" demonstrated in Spring 2003.

BIOAGRICULTURAL SCIENCES & PEST MANAGEMENT: BS Landscape Architecture	
Plan Component	Learning Assessment Method 2 (Portfolio)
Practice Type	Digitizing & Archiving Portfolios for Historical Reference
Abbreviated Description	Portfolio / digital portfolio / writing - reviewed, scored, and ranked by all faculty members. All members of each graduating class are required to submit for review a portfolio of their works. Portfolios (website, CD Rom, and paper) typically contain indices of basic intellectual and physical skills as well as design, planning and technical knowledge and qualifications. These indicators are reviewed, scored, and ranked by all faculty members. Digital images are entered into the archive to provide views of students and courses over time.
NATURAL RESOURCE RECREATION & TOURISM: **BS Natural Resource Recreation and Tourism: Environmental Communication**	
Plan Component	Assessment 1,2,3 (Service Learning Project)
Practice Type	Multiple Assessments & Faculty Members from Other Departments Used for Evaluation
Abbreviated Description	Assessment of environmental communication students on Outcome One will occur using two primary evaluative methods: 1) Students are required to participate in an internship in a professional organization / business related to environmental communication. Each student is required to undergo an evaluation by his/her supervisor regarding his/her ability to apply these learning outcomes. The student evaluation sheet used by supervisors will contain evaluative criteria related to outcome two above. 2) Students in Public Relations in Natural Resources (NR400) and Communication in Natural Resource Planning and Decision-Making (RR481) will be required to produce a final service–learning project related to real–world natural resource management communication problems. Results from these projects will be presented at the Natural Resource Recreation and Tourism Symposium. The presentations will be evaluated by teams of a minimum of three faculty members, representing each concentration as well as faculty from other departments with ties to the field and to our work. A rubric will be used.

APAIC wanted to emphasize quality early in the plan development process, so it provided extensive feedback, commenting on nearly all of the 830 outcomes. Some common weaknesses were repeatedly observed in a large number of assessment plans, such as listing learning outcomes in terms that were either too general or vague, or so technical that students

may not understand them. APAIC suggested that several programs re-define their outcomes and list the learning subcomponents to clarify a general outcome.

As programs responded to these comments in May 2003, dialogue developed between members of APAIC and individuals reporting plans online. This dialogue is expected to become one of the most important devices to expand the University's culture of assessment.

The summary output of the online assessment database includes a list of prioritized outcomes, including learning, faculty research, faculty service/outreach and student affairs outcomes for each program, comprising about 830 academic outcomes and over 110 student affairs outcomes. Examples of learning outcomes include student demonstrations of project design, teamwork, communication skills, practical knowledge, marketing problem analysis and many others. Relationships were identified between nearly all academic/support program assessment plans and the University's mission statement, USP goals, and many college or division goals. All program assessment outcomes related to their respective program purpose statements.

At the end of the Spring semester 2003, programs began reporting their first cycle of assessment results, evaluations, and program improvements. Several programs plan to evaluate Spring data and identify program improvements in Fall 2003 when faculty members return from summer break. During Summer 2003, APAIC reviewed those programs that had completed reporting by the end of June. Two examples (Tables 7-7a and 7-7b) are shown

Figure 7-7a. Example of program assessment results and improvements for BS in Wildlife Biology.

Results and Planning

Data Summary and Evaluation
Student assessment values are based on performance on the criteria below. Assessment values were not taken at the individual level, but instead were derived based upon group performance on the final group project.
 	
1. Oral competency must be demonstrated by ability to prepare, organize, and deliver effective oral presentations.
2. Ability to develop a management plan with specific multiple objectives and constraints.
3. Competency must be demonstrated as an understanding of the components, patterns, and processes of biological and ecological systems across spatial and temporal scales.
4. Ability to identify and measure land areas and conduct spatial analysis.
5. Ability to analyze the economic, environmental, and social consequences of resource management strategies and decisions.
6. Written competency must be demonstrated by proficiency in English composition, technical/business writing, and writing for non-professional audiences.
 	
Results (n= 39):
  Criterion 1. Average rating was 3.24 with 33% scoring above 3.
  Criterion 2. Average rating was 3.17 with 21% scoring above 3.
  Criterion 3. Average rating was 3.31 with 38% scoring above 3.
  Criterion 4. Average rating was 3.13 with 21% scoring above 3.
  Criterion 5. Average rating was 3.14 with 21% scoring above 3.
  Criterion 6. Average rating was 2.96 with 36% scoring above 3.
 	
One hundred percent scored average or above on all criteria with near or above 35% scoring 4 (good) or better on criteria 1, 3,and 6. Faculty members are disappointed that more did not score 4 or above on criteria 2, 4, and 5, but were pleased with the overall performance.

Program Improvements Based upon one sample, faculty members cannot determine if this class represents a typical group of seniors or if something is missing in the curriculum. Thus, more data must be collected to establish trends.

Table 7-7b. Example of program assessment results and improvements for BS in Nutrition and Food Science.

Results and Planning
Data Summary and Evaluation
The seniors taking an exam modeled after the national exam given to individuals trying to qualify to become a Registered Dietitian averaged 56% on the exam: 50% on Food Service Management questions, 52-54% on community and clinical nutrition questions, and 62% on nutrition science questions. Although far below the predicted 75% score rate for 80% of students, it was substantially higher than the scores of entry level students. These students averaged 41% on the test: 41% on FSM, 26% on community, 34% on clinical, and 51% on nutrition science questions.
Program Improvements
Before, concluding that there are problems with the curriculum or specific classes, we will be reviewing both the exam and the context in which it was given. The RD exam is given post graduation and AFTER a 6-10 month internship work experience. Some questions may be inappropriate or too difficult for students prior to the internship. Also, relative to the seniors, there is no incentive to review or do well on this exam. We will be considering options to encourage them to make a more serious effort.

because they demonstrate the effectiveness of direct methodology to determine substantive variations in student performance rather than relying on surveys. Generally, programs were cautious about reporting improvements until additional cycles of data are analyzed.

In December 2003, academic programs are expected to report a second cycle of assessment results, evaluations, and program improvements. The first Annual Program Improvement Research Report is scheduled to be completed in February 2004 and distributed to the University community to foster more engagement in the assessment process. APAIC is targeting mechanisms to expand students' engagement. For example, the planned Assessment Reporting Week will focus on informing students about assessment results, the resulting program improvements, and best practices in assessment at CSU. Faculty members are beginning to see their assessment process work through the implementation of online reporting. The standard reporting format is now in wide use across campus, which provides opportunities for qualitative feedback by APAIC, identifying and showcasing best practices. APAIC representatives from each college regularly review program assessment plans, participate in assessment training, and update guidelines for assessment plan design.

Faculty members have identified a need to develop assessment procedures for the AUCC, especially the First Year Seminars. In October 2002, a five-member team participated in a collaborative workshop administered by the HLC and the American Association for Higher Education. This experience helped the team develop a preliminary plan to assess all four components of the AUCC. The plan suggests that approximately one-third of the AUCC be assessed each year with a full cycle completed every three years. When implemented, this plan is designed to keep the task manageable for faculty and allow the institution to focus on a different aspect of the AUCC each year.

Student Engagement in the Learning Environment

Multiple patterns of evidence have been provided in this chapter and Chapter 6 to demonstrate that a learning environment has been created. Some of the major components

include: effective teaching characterizes courses and academic programs; student services effectively support CSU's purposes; the library offers student learning tutorials and other instruction; there is ongoing support for faculty and staff professional development; students are engaged in diverse learning experiences; faculty members and students engage each other and participate together in scholarship and/or research; and activities exist that stimulate examination and understanding of personal, social, and civic values. In addition to creating the learning environment, it is essential to demonstrate that students are effectively engaged.

Many positive findings of student perceptions and experiences suggest that students pursue their academic careers in a welcoming, engaging, and supportive environment that offers diverse experiences. This asset enables the University to challenge students academically through educational programs possessing integrity, coherency and rigor. More systematic assessment of student perceptions is available through the National Survey of Student Engagement (NSSE).

National Survey of Student Engagement

CSU participated in the NSSE 2001 to assess the extent to which students are engaged in a variety of good educational practices. In general, the survey results indicate that the engagement of students at CSU differs little, if at all, from the average results of the other 48 Doctoral/Research Extensive institutions (NSSE 2001 Means Summary Report). Moderate or large differences were not detected for any item in the survey, suggesting the results are "average." The NSSE reviewed academic, intellectual, and social experiences; mental activities; reading and writing; challenge of examinations; quality of advising; time usage; educational and personal growth; institutional emphases; quality of relationships; and satisfaction.

Despite the fact that there was relatively little difference between CSU and the comparison groups, the campus could benefit from discussion of the NSSE results. Discussion among faculty and staff may reveal areas in which the University wishes to distinguish itself from its comparison group, and areas in which it wishes to improve. Partly to identify persistent patterns of engagement, the University participated in the NSSE once again in Spring 2003. When results are available, it is recommended that a group such as CAAD be charged with reviewing the results and sponsoring a broad, campus-wide discussion of their implications.

Evidence of Academic Achievement

The strength of academic programs is indicated by a wide variety of student achievements that provide evidence of student learning. Academic program reviews, and when applicable, specialized accreditation reviews are currently the most consistent means of

documenting these accomplishments of educational objectives. Outcomes assessment of learning objectives is becoming a much more important tool as previously described. Student learning is reviewed in this section using a variety of direct and indirect assessments. In addition, the dissemination of these results of the institution's assessment of student academic achievements is intended to provide various constituencies a way to learn about the actual effectiveness of teaching and learning within the programs.

Indirect Evidence of Learning

Indirect measurements of student learning tend to be summative rather than formative because they frequently lack the specificity to identify unique program strengths and weaknesses in a way that will provide insight for program improvements. Nevertheless, they are important accountability indicators and useful parameters for use in peer comparisons. OBIA publishes the *Fact Book*, *Scorecard*, and provides additional summative data on institutional effectiveness to the university community on request. Data relative to academic outcomes include persistence and graduation rates along with GPA. Most data results include peer comparisons. Other data elements related to the learning environment are student-faculty ratio, undergraduate class size, and undergraduate SCH production by faculty appointment type (discussed in Chapter 6).

Graduation Rates

For undergraduate education, graduation rates are the single most common indicator used by many institutions as a form of performance measurement. The percentages of students graduating within four and five years have been steadily increasing since 1990. During the 10-year period since 1992 (students entered in 1988), the percentage of students graduating after four years has increased from 20.4% to 32.6%. The most recent QIS data indicate that the 5-year graduation rates were 57.0%, 57.4% and 58.9% for the cohort of students entering in fall of 1994, 1995 and 1996, respectively, which were within or above the benchmark range of 53.7-57.7%.

The University has made progress in narrowing the gap in graduation rates between minority and non-minority student populations. QIS data show that the graduation rates after six years were 49.7%, 50.3%, and 54.5% for the cohort of minority students entering in the fall of 1993, 1994, and 1995, respectively. The cumulative percentages of all students six years after entering in these same years were 59.8%, 61.9%, and 62.4%. Not only has the graduation rate for minority entering freshmen improved, the gap between all students and minority students has narrowed.

Rates of Job Placement or Advanced Education

Colleges and departments periodically survey graduates and alumni to learn how successful their graduates are in entering the workforce or in pursuing more advanced education. Some examples are provided to illustrate the success of CSU graduates. Departments in COE used an alumni survey in 2000 and determined the following placement information. Five years after graduation, 91%, 96%, and 83% were employed full time in Mechanical, Civil, and Chemical Engineering, respectively. Higher rates were found for graduates two or three years out: 95%, 97%, and 100% respectively (*Engineering Criteria 2000: Self-Study Reports for ABET*).

The COB annually compiles undergraduate placement statistics on students 90 days after graduation. In May 2002, 84% of the students actively seeking employment were successfully employed. In May 2001, the employment rates (those actively seeking employment) for five departments ranged from 88 to 97%, and salary figures indicated a range from $38,032 to $46,009.

Placement rates for baccalaureate graduates who attend graduate or professional schools are available for some departments in CNS. Among Mathematics graduates, 33% entered graduate school, 20% took a job in a mathematics-related industry, and 20% took a position in teaching. Approximately 33% of the BS graduates in both Biology and Chemistry enroll in graduate or professional schools. For students graduating with a BS in Biochemistry, 34% enrolled in medical, veterinary or dental school, 29% were employed as technicians in industry or academia, and 31% enrolled in graduate school. The CNS Career Advising Center has determined that approximately 20% of Psychology majors enroll in graduate or professional school.

In Spring 2001 and Spring 2002, 70% and 76% of graduating seniors from CNR programs, respectively, had secured employment at the time of graduation, and 52% indicated they had completed one or more internships. These numbers indicate that the establishment of a CNR Career Office and Career Advisor is having a positive impact on student career development, opportunity, and success.

Survey Information Gathered from Students, Alumni and Employers

- CAS students, former students, and employers give high marks to teaching, advising, and course content. Feedback from alumni, students and practitioners aided in creating curriculum focused on the future needs of the industry using cutting edge technology.
- A 1998 survey of CNR alumni (graduates 1968-1997) found that 91% reported satisfaction with their overall undergraduate experience, 88% were satisfied with their overall academic experience and 84% with the academic experience in their

major. Student surveys and focus groups consistently report strong satisfaction with their educational programs. Employer surveys reflect satisfaction with CNR graduates' skills and knowledge.

Specialized Accreditation, Self-Studies, and Program Reviews

- Programs in CAHS are accredited by their respective professional associations. For example, the Early Childhood Center in the Department of Human Development and Family Studies was accredited in 2001 by the National Association for the Education of Young Children. This prestigious recognition has been achieved by approximately 7% of early childhood programs nationwide. Other accredited programs include Construction Management, Dietetics, Education, Interior Design, and Social Work.

- The COB was recently (2000-2002) re-accredited by AACSB. The reallocation of faculty lines and the streamlining of program offerings enabled the College to assure that full-time faculty members generate at least 60 percent of the student credit hours. This significant achievement has brought the College into compliance with AACSB standards for course coverage by tenure-track faculty. These program enhancements were based upon recommendations from the 1996-97 academic program review and the 2000/2002 AACSB review, and they have resulted in significant strengthening of the College's undergraduate programs and the students who enroll in them.

- All departments in COE have received specialized accreditation through ABET. The most recent accreditation visit took place in Fall 2002. As part of the ABET accreditation process the departments have been implementing a series of outcome assessment procedures, including senior exit surveys, alumni surveys, and review meetings with external advisory boards.

- Two disciplines in the CLA have accrediting agencies – journalism and music – and both disciplines have been recently reaccredited.

- The positive accreditation reviews for Rangeland Ecosystem Science, Forest Sciences and Recreation Resources undergraduate programs in CNR are indicators of program quality and relevance.

- The BS program in Chemistry is accredited by the American Chemical Society.

External Recognition of Programs

- The CSU chapter of the Student Society of Professional Journalists was voted #1 in the United States by that organization.

- Six undergraduate majors in CAS are ranked in the top 20 nationally (Gourman Report, 1996) with the respective rankings of #2 in Farm and Ranch Management,

#7 in Agricultural Business, #10 in Animal Sciences, #13 in Horticulture, #14 in Agricultural Economics, and #20 in Landscape Architecture.

- The undergraduate programs in nutrition and dietetics are both ranked fifth in the nation by the Gourman Report.

- Programs in Rangeland Ecology, Wildlife Biology, and Natural Resource Recreation and Tourism consistently rank as first or second best programs for the respective discipline in the country.

- Several programs have received designation by the CCHE as Programs of Excellence (Chapter 3).

- The Department of English received the prestigious designation as a National Writing Center Site, a designation awarded to only 40 colleges and universities in the United States.

- The Department of Sociology was recently listed in the top 10 programs in the country for producing scholarship on sociology pedagogy.

- In 1999, CNR was ranked as "one of the country's top 'make a difference' institutions and recognized as a unique educational opportunity that caters to students who want to change the world" (M. Weinstein, *Making a Difference College and Graduate Guide: Outstanding Colleges to Help You Make a Better World*).

- In 2000, the Student Chapter of the Wildlife Society was rated the top student chapter in the United States.

- *U.S. News & World Report's* "America's Best Colleges" ranked CSU among the top universities in the country, placing it in the second tier along with institutions like Michigan State, Purdue University, and the University of Arizona. The ranking is the latest in a recent string of national recognitions for the university.

- *Kiplinger's Personal Finance Magazine* lists Colorado State among the top public universities in terms of educational quality and affordability.

Direct Evidence of Learning

Direct measurements of student learning hold potential to be formative. When properly constructed, they can identify unique program strengths and weaknesses in a way that will provide instruction for program improvements. Many direct assessments are identified in the online assessment database of PRISM <kiowa.colostate.edu/assessment/>. They include a variety of embedded measures such as pre- and post-testing, capstone courses, oral examinations, internship evaluations, portfolio assessments, locally developed tests, juried reviews and performances, and standardized national achievement, certification, licensure, or professional examinations. A few examples demonstrating student learning are provided.

- CAS students rate highly in national competitions requiring demonstrated communication skills and discipline knowledge. For example, in 2002 student clubs entered 19 national competitions. The clubs were either national champions or runners-up in 12 of the 19 (9 at the undergraduate level, and 3 at the graduate level). Students rate these experiences positively in their contributions to overall education.

- Students from 16 disciplines at CSU who seek teaching licensure do so through the SOE, which has been extremely successful in preparing students. For example, in March 2002 the National Evaluation Systems, Inc. reported a 96% overall pass rate on the state licensing exams for 2000-2001 program completers (NCATE report, <www.colostate.edu/Depts/EdLicense/accreditation/ncate.htm>).

- The extensive internship program in the COB (approximately 2/3 of all COB students participate) and aggressive efforts to graduate students within the four-year time frame leads to very high placement rates for COB undergraduate students.

- In March, 2003, the undergraduate Summit Student Investment Fund (Finance Students) placed third nationally in the growth category and 6th overall in the CNBC/NYSE Top 10 College Student Investment Portfolio held at the Global Student Investment Competition at the University of Dayton (Ohio). In April 2003, the COB's Free Enterprise Team (Entrepreneurship Program) received first place in the Denver Regional Championship and represented the University in the National Finals in May 2003.

- The Department of Electrical and Computer Engineering recently changed the sequence for taking Physics by moving the first physics course from the Fall semester, first-year, to the Spring semester. This change was initiated in response to sub-adequate performance by students in the physics courses.

- In the Department of Mechanical Engineering, the senior design course was recently reorganized into three areas, including a SAE formula car project. Senior design student feedback indicated a need for greater theoretical background in the curriculum to support this design effort. Mechanical Engineering responded by implementing a new senior-level elective in internal combustion engines.

- The capstone requirement for the AUCC is met through engineering senior design courses that have been suitably modified. Details of many other changes that have been made to the engineering programs can be found in the self-study reports prepared for ABET.

- The Hansard Society for Parliamentary Democracy in London, which awards 12 positions annually to applicants from around the world to study at the London School of Economics and do internships with Cabinet officials or members of the House of

Commons, awarded almost one-fourth of those positions (26) to students from CLA during the last 10 years.

- Approximately 30 art majors in graphic design during the past 10 years were accepted for the American Institute of Graphic Arts national exhibition and four were awarded a first-place prize. During that same period, every competitive scholarship awarded to graphic design students by the Art Directors Club of Denver has gone to a CSU student. Four art majors in the fibers concentration won top awards at the *Atelier: Un'idea Per Il Museu del Tessuto* in Prato, Italy.

- A theatre student was chosen in 2001 to be one of 16 students chosen from thousands of competitors for participation in the Kennedy Center/American College Theatre Festival.

- In 2001 the Student Chapter of the Society of American Foresters won the National Quiz Bowl.

Key Strengths

- **Colorado State University provides a comprehensive array of undergraduate programs of study that are strong, relevant, coherent, and intellectually rigorous.**

     As a "learner-centered" University, the undergraduate programs of study challenge students to develop proficiency in skills and competencies essential for all college-educated adults, including the examination and understanding of personal, social, and civic values, and mastery of knowledge at the program level appropriate to the degree granted. The AUCC provides an identifiable and coherent general education component that is shared by all undergraduate students. The AUCC provides a focus on learner outcomes in addition to course content; emphasizes life long learning to supplement knowledge in a discipline; and integrates core themes throughout a student's entire program of undergraduate study. Patterns of evidence cited in this report demonstrate that CSU fulfills HLC's expectations for Criterion Three in achieving its undergraduate academic purposes.

- **Colorado State University provides high quality academic and student support services that facilitate students' academic, intellectual, and social growth.**

     The faculty and staff are dedicated and effective in creating a learning environment that engages students and provides opportunities for all students to succeed. The support services range from pre-college preparatory programs, through orientation, advising, intervention, accommodation, retention, social development, civic participation, career counseling, and job placement programs.

Challenges and Opportunities

- **Colorado State University is implementing student academic achievement assessment plans and must find ways to sustain institutional commitment to this process and strengthen participation by faculty and students.**

The University has made significant progress in developing a systemic assessment process and has engaged faculty and staff in systematic program research for the purpose of program improvement. Systematic assessment of general education is less developed than program assessment. Long-term institutional commitment to continuous cycles of assessment must be sustained to increase the value of these processes through integration of the results into program reviews, strategic planning, and budget decisions.

Addendum

At the time this Self-Study Report was going to press, proposals had been submitted to Faculty Council for changing the AUCC requirements by eliminating the First Year Seminars. These changes resulted from College and Department assessments of the value of First Year Seminars in relation to the amount of resources required to offer them. The proposals, if approved, will uncouple orientation and academic seminars. More emphasis will be placed on orientation (multiple days) before classes start in the Fall and a new Intra-University academic seminar (IU193) will be offered to provide Freshmen students the opportunity to participate in a small enrollment class (19 or fewer students) that is taught by a faculty member who is enthusiastic about the topic and who wishes to convey his or her passion for learning to first-year students.