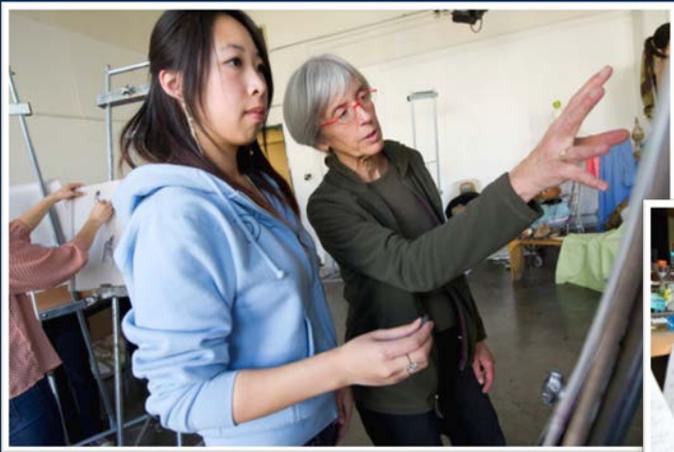




UC DAVIS INSTITUTIONAL REACCREDITATION REPORT

Western Association of Schools and Colleges

Submitted March 2013



Institutional Stipulations

The University of California, Davis (henceforth UC Davis) will use the accreditation review process to demonstrate its fulfillment of the core commitments, will engage in the process with seriousness and candor, will present accurate data, and that it will fairly present itself in its institutional report and exhibits.

UC Davis has published and publicly available policies as identified by the Commission. Such policies will be available for review on request throughout the period of accreditation.

UC Davis will abide by procedures adopted by the Commission to meet United States Department of Education procedural requirements.

UC Davis will submit, in a timely fashion, all regularly required data and any additional data specifically requested by the Commission during the period of accreditation or candidacy.

UC Davis has reviewed its off-campus programs, distance education programs, international and joint degree programs to ensure that they have been approved as required by WASC policies.



Linda P.B. Katehi, Chancellor

University of California, Davis



Contents

Introduction: The Institutional Context	1
History [CFRs 1.1, 1.2, 1.3, 1.6]	1
Strengths [CFRs 1.1, 1.2, 1.3, 1.6, 3.8, 3.9]	3
Accreditation History [CFRs 1.2, 1.7, 1.9, 2.8, 3.7]	4
Challenges [CFRs 3.5, 3.6, 3.8, 4.2]	5
Current Priorities and Plans [CFRs 3.8, 4.1, 4.2, 4.3, 4.8]	6
Piloting Reports [CFR 1.9]	6
Preparation for this Review [CFRs 1.9, 4.8]	7
Essay 1-2: Meaning, Quality, and Rigor of the Degree / Graduation Proficiencies	8
The UC Davis Mission and Vision [CFRs 1.1, 1.2, 1.3, 3.5, 3.10, 3.11]	8
Responsibility for Degree Programs [CFRs 2.2, 2.4, 3.8, 3.9, 3.10, 3.11]	9
Institutional Educational Objectives	11
General Education [CFRs 2.2, 2.3, 4.4]	12
Cocurricular Pathways [CFRs 2.11, 4.4]	13
Quality and Integrity of the Degree [CFRs 1.7, 2.1, 2.2, 2.6, 2.7, 3.8, 4.4-4.8]	13
Program Review	14
Curricular Integrity	22
Teaching and Learning	24
Instructional Improvement [CFRs 2.6, 2.8, 2.9, 3.4, 4.4, 4.6, 4.7, 4.8]	24
University Writing Program (UWP) [CFRs 2.1, 2.13, 2.6, 2.7, 3.2, 4.1, 4.6, 4.7]	27
Student Standards for Achievement [CFRs 1.2, 1.7, 2.1, 2.2, 2.10]	28
Essay 3: Defining and Promoting Student Success	30
Defining Student Success [CFRs 1.2, 1.7, 2.1, 2.2]	30
Student Success [CFRs 1.5, 2.10, 2.11, 2.14]	30
Student Success I: Measuring Graduation, Retention, and Time-to-Degree	32
Student Success II: Qualitative Experience	34
Student Success III: Enhancing Student Success	41
Student Success IV: Ensuring Success	51
Outcomes [CFR 2.6]	53

Essay 4: Ensuring Institutional Capacity and Effectiveness in the Future, and Planning for the Changing Environment for Higher Education	54
Financial Sustainability [CFR 1.3, 1.8, 3.5]	54
Strategic Initiatives Aimed at Ensuring Financial Stability [CFRs 1.3, 1.8, 3.5, 4.1, 4.2, 4.3]	54
Accommodating Growth [CFRs 1.2, 1.3, 1.8, 3.1, 3.2, 3.5, 4.2, 4.3]	59
Ensuring Educational Effectiveness [CFRs 2.3, 2.4, 2.7, 3.3, 4.4, 4.5, 4.6]	68
Integrative Essay	72
Undergraduate Advising	72
Graduate Education and Planning	75
Undergraduate Educational Assessment	76
Acronyms Used in Report.....	79
Figures.....	80

Introduction: The Institutional Context

UC Davis aspires to be recognized as one of the nation's top-tier public research universities. As such, we choose to be regarded, both domestically and globally, as a pre-eminent leader of higher education that is driven by our land-grant heritage to provide access to a socially relevant world-class education.

[UC Davis: A Vision of Excellence](#)

History [CFRs 1.1, 1.2, 1.3, 1.6]

The summer of 2012 marked the 150th anniversary of the first Morrill Act, signed into law by Abraham Lincoln, mandating the creation of land-grant colleges and universities. Charged with teaching agriculture and “the mechanic arts” in addition to classical studies, land-grant institutions broadened access for all segments of society to a higher education that was both liberal and practical, and emphasized the teaching, learning, and development of new technologies that would benefit humanity.

UC Davis is an exemplar of the land-grant ideal. Established in 1905 as the University Farm, an experimental site for the College of Agriculture at UC Berkeley, it grew as an [agricultural college](#) over the 1920s and 30s, and in 1959 was designated a University of California campus in its own right. The campus has continued to expand in its breadth of program offerings; depth of research; number of students, faculty, and staff; and in prestige. In 1996, UC Davis gained admission to the [Association of American Universities](#), an honor accorded only 62 leading research institutions in the US and Canada.

Today, UC Davis upholds its land-grant commitments to serve a broad student population and the world at large in our top-ranked, highly sophisticated agricultural and engineering programs, biological sciences, mathematical and physical sciences, social sciences, and humanities, which together offer an extensive range of disciplinary and interdisciplinary research areas aimed toward solving global problems. The campus offers 101 [undergraduate majors](#) across four colleges: [Agricultural and Environmental Sciences](#) (CAES), [Biological Sciences](#) (CBS), [Engineering](#) (CoE), and [Letters and Science](#) (CLS), which incorporates the Divisions of Mathematical and Physical Sciences (MPS); Humanities, Arts and Cultural Studies (HARCS); and Social Sciences (DSS). [Graduate and professional degrees in 94 programs](#) are offered across the colleges, in addition to professional degrees offered by the schools of [Education](#), [Law](#), [Management](#), [Medicine](#), [Nursing](#), and [Veterinary Medicine](#). A number of these programs are organized as graduate groups that target interdisciplinary study and research.

On the cusp of the 2012-13 academic year, the campus received its highest-ever national ranking at the undergraduate level by [US News and World Report](#): 8th among public universities and 38th overall, continuing an upward trend. In addition, one-third of the 51 UC Davis doctoral programs participating in the National Research Council's 2010 *Assessment of U.S. Doctoral Programs* ranked in the top 25 percent in their respective fields, with a half-dozen programs ranking in the top five

percent. These high-profile indicators of public esteem help us to recruit diverse, academically accomplished students. Chancellor Linda P.B. Katehi's response to the NRC report, that "UC Davis's reputation continues to grow as one of the nation's elite public universities, where innovative research is addressing the world's most critical issues and students are equipped for productive, meaningful lives," captures the campus's essential qualities of being both public and excellent – a university that enjoys a rising global reputation for excellence, never losing sight of its commitment to human good.

Since our last reaccreditation cycle, the campus has seen continual growth in our student populations, faculty, research and donor funding, and the campus footprint. The student population has increased steadily, with the highest percentage change in graduate student enrollments. The [Fall 2012 Student Population Headcount](#) of 33,300 includes 25,759 undergraduates, 4,159 graduate students in academic programs, 747 in campus professional programs, 2,058 in health science programs, and 577 in [self-supporting programs](#). (See [Figure 1: Cumulative Growth in Student Population 1998-2011](#).) Student enrollment increased 19.6% from [2001 - 2011](#); during that period, total full-time academic staff increased by 20%, from 3,520 to 4,414, with ladder-rank teaching faculty increasing 16%. For 2013, the undergraduate student-faculty ratio average across the colleges is 24.3, ranging from 16.6 in the CoE to 30.0 in the CLS's [Division of Mathematics and Physical Sciences](#) (see [Ex. 7](#)).¹

Undergraduate students are attracted to a wide variety of programs. The most consistently [popular majors](#) for the past several years are [Biological Sciences](#), [Psychology](#), [Economics](#), and [Biochemistry & Molecular Biology](#). About 27% of undergraduates are in a major in the [Division of Social Sciences](#), followed by the [College of Agricultural and Environmental Sciences](#) (22%), [College of Biological Sciences](#) (21%), [College of Engineering](#) (14%), [Humanities, Arts, and Cultural Studies](#) (10%), and [Mathematics and Physical Sciences](#) (6%) (see [Ex. 7](#)). A major distinction of the Davis campus in comparison to other UC campuses is that here approximately 56% of our undergraduates are enrolled in Science, Technology, Engineering and Math (STEM) majors. The need for successful STEM education has received [national attention](#), and campus efforts toward student success in this area will be discussed in Essay 4.

Graduate academic programs have seen the greatest increase during this same ten-year period; the number of students enrolled in graduate programs has increased 35.2%. In Fall 2001, UC Davis enrolled students in 83 graduate programs; by Fall 2011, that number had grown to 94 programs.

Fall 2010 marked the inauguration of the campus's newest school, the [Betty Irene Moore School of Nursing](#). Its first MS and PhD cohorts enrolled in that year; all 25 of the inaugural master's degree class received their graduate degrees in June 2012. The UC Davis Health System also boasts the [School of Medicine](#), ranked among the top 25 for primary care. [The School of Veterinary Medicine](#), ranked second in North America by *US News and World Report (USNWR)*, is unique among the UC campuses in offering the DVM degree. [The School of Law](#) is also highly ranked by *USNWR*. [The School of Education](#) offers MA, PhD, and EdD programs. The [Graduate School of Management's](#) MBA program is ranked in the top tier by the *Economist*, and among the top 8% by *USNWR*.

¹ All exhibits cited in this report will be represented by "Ex." followed by the corresponding number.

The decade has seen an increase of over 150% in research funding, from \$300 million to [\\$750 million in 2011-12](#), with major grants from US AID, NIH, NSF, the Templeton Foundation, the Mellon Foundation, and the USDA. In a year in which overall extramural awards to UC declined systemwide by 1%, research funding to UC Davis increased by 10% (\$65 million) – the largest gain in the UC system (see [Office of Research Annual Report 2011-12](#), p. 3). The campus has made a major investment in the reorganization of [The Office of Research](#), enabling the office to fulfill its primary mission of service to the faculty and to launch several new research initiatives.

Strengths [CFRs 1.1, 1.2, 1.3, 1.6, 3.8, 3.9]

UC Davis benefits from the institutional strength and prestige of being a campus in the State of California's flagship system of higher education. [Shared governance](#) between the Board of Regents, the systemwide president, and the faculty ensures the highest standards of excellence in fulfilling the [University of California's mission](#) of teaching, research and public service.

Our campus has a sense of [purpose](#), vision, leadership and planning, and a commitment to maintaining the integrity of our mission in a rapidly changing world. In August 2009, [Linda P. B. Katehi](#) became the sixth chancellor of UC Davis, and [Ralph Hexter](#) became provost and executive vice chancellor in January 2011. Accompanying our new leadership is the [UC Davis: A Vision of Excellence \(Ex. 14\)](#); henceforth Vision of Excellence), a ten-year plan to be recognized as one of the nation's top-tier public research universities. The vision's implementation was informed, at the chancellor's request, by the 2010 Academic Senate [Report of the Task Force on the Future of UC Davis](#). At UC Davis, [shared governance with the Academic Senate](#) is held in high regard. A number of task forces have involved faculty, students, and administration to inform university planning. These include, in 2012, a [Joint Administration / Academic Senate Special Task Force on Graduate Education](#), which produced its report on [Prioritizing and Strengthening Graduate Education at UC Davis \(Ex. 45\)](#); and the [Provost's Task Forces for the 2020 Initiative](#), which has looked at maintaining the UC Davis vision in a changing financial climate through sustainable growth, and produced the [Joint Report of the 2020 Task Forces \(Ex. 47\)](#).

With the largest landmass of the University of California system, the physical size and setting of the UC Davis campus is clearly an asset. Situated on 5,300 acres of agricultural land in the Sacramento Valley, the campus has a spacious feel and ample room to expand within its borders. Expansion is approached with a commitment to long-range [planning](#) to provide a sustainable community; a [commitment](#) to a physical environment that supports the academic mission, enhances health, and brings meaning and enjoyment to the community; and well-coordinated campus-community-industry partnerships.

The past decade has seen the revitalization of previously isolated, underutilized spaces into projects which integrate with the campus not only spatially, but also conceptually and intellectually. These spaces offer students unprecedented access to cutting-edge technologies, world-class performing artists, and interdisciplinary projects. Raising the campus's visibility and serving as a portal for visitors to the campus, as well as showcasing our creative work, is the [Robert and Margrit Mondavi Center for the Performing Arts](#), one of several new buildings in the University Gateway District. The district includes the unique [Robert Mondavi Institute for Wine and Food Science](#), the future site of the

[Jan and Maria Manetti Shrem Museum of Art](#), and the [Arboretum GATEways expansion](#). Behind this expansion is a master planning framework that envisions our campus's nationally recognized public garden. The arts buildings symbolize our campus activities in the arts; the Institute for Wine and Food Science offers cutting-edge research facilities and [industrial partnerships](#); and the Arboretum represents our commitment towards a sustainable relationship with the natural world. The district also includes the Walter A. Buehler Alumni & Visitor Center; a newly constructed hotel and conference center; and the Graduate School of Management. Construction of the structures was made possible by donor support.

[West Village](#), the nation's largest zero-net-energy planned community, borders crop fields just west of the main campus. A dynamic mixed-use community, it allows students, faculty, and staff to live locally and participate fully in the life of the campus, helping to maintain the strong sense of community that has long been a hallmark of UC Davis.

Campus improvements in the past decade include a number of new instructional and research buildings to provide learning spaces critical to student success. Within the core campus, [Giedt Hall](#) is a state-of-the-art learning environment, and the [Sciences Lab Building](#), a teaching laboratory designed specifically for chemistry and biology, includes an instructional [greenhouse](#). On the west side of campus, seven [new Veterinary Medicine buildings](#) have been constructed. Student life is enhanced by the [Activities and Recreation Center](#), [Student Health and Wellness Center](#), and the [Student Community Center](#). Student housing has been an [ongoing focus of renovation and growth](#). Over the last several years we have responded to student growth by building and expanding the Tercero complex. [Tercero Phase 3](#), our current student housing capital project, will now add seven additional buildings to house 1,200 students. New buildings were funded by various sources including private donations, student fees, and bond measures. (See [Ex. 9](#) for a complete list of buildings constructed since the previous reaccreditation report, including funding sources.)

Accreditation History [CFRs 1.2, 1.7, 1.9, 2.8, 3.7]

A full accounting of UC Davis's responses to previous WASC reports can be found in the [Response to Previous Reviews](#). UC Davis has been accredited since 1954, with its most recent on-site reaccreditation visit in 2003. The [2003 Commission Action Letter](#) specifically highlights the "student-centered atmosphere of openness and teamwork that is rare in large public, or even private, universities," and the "ample supply" of both inspirational and pragmatic motivation for innovation and change. We selected themes for that accreditation that included undergraduate research and educational technology. WASC's recommendations to define more clearly what is included as undergraduate research within various disciplines and to map the sequence of undergraduate research activities came to full fruition with the establishment of the [Undergraduate Research Center](#) (see Essay 3). Recommendations on educational technology have been met in a variety of ways, many of which were not envisioned a decade ago, including information technology infrastructure with wireless capabilities for student use throughout the campus; the introduction of [SmartSite](#), a campus course content management platform that facilitates the distribution of written, audio, and video course content as well as communication between students and instructors. Resources have been dedicated for the development of hybrid and online courses (see Essay 4). An example of campus efforts to meet both undergraduate research and technology needs is the new [Student Community](#)

[Center](#), dedicated in Spring 2012, which houses both the Undergraduate Research Center and state-of-the-art, open-access media and computer labs. While making significant progress in undergraduate research and educational technology, the campus also devoted its attention to General Education (GE) requirements and learning outcomes assessment, areas identified for further attention in the 2008 and 2010 WASC Interim Reports. Snapshots of the campus progress in these two areas are provided below and they are also discussed at length in the body of the essays following.

General Education (GE) [CFRs 2.3, 4.4]

The [2003 Educational Effectiveness Review Report](#) called attention to the university's requirements and practices with respect to GE. While considerable progress was acknowledged, the report concluded that the campus "needs either to strengthen educational requirements on the front end of the student experience, or to develop a system for accumulating and reflecting upon outcomes evidence on the back end." In response, the GE requirement has been completely overhauled since the last WASC review, with the [revised requirement](#) implemented in Fall 2011 (see Essay 1). The [2010 WASC Interim Review Committee Action Letter](#) applauded the progress UC Davis had made in this area. Assessment and evaluation in GE continue to be areas of growth and focus. The Academic Senate and administration are continuing to find better ways to enhance assessment in all areas of learning including assessing GE outcomes within the ongoing program review process.

Learning Outcomes and Assessment [CFRs 1.2, 2.3, 4.4]

UC Davis has committed to assessing learning outcomes for all graduate and undergraduate students. Graduate learning objectives were approved by the Graduate Council in Spring 2005. At UC Davis assessment is a comprehensive effort that stretches from individual course evaluations to the ongoing assessment of every undergraduate program on a seven-year cycle, overseen by the Academic Senate's Undergraduate Council (UGC). We have strengthened these processes by establishing undergraduate program learning outcomes (PLOs) in 100% of all undergraduate majors. In summer 2012, the Office of the Vice Provost of Undergraduate Education (VPUE) recruited a Director of Academic Assessment, followed by the appointment of an Assessment Coordinator. These positions provide faculty consultation and administrative support on assessment matters. The Academic Senate and administration have jointly declared support for the iconic American Association of Higher Education (AAHE) [Principles of Good Practice for Assessing Student Learning](#), a set of guiding principles that will inform our process of establishing learning outcomes assessment campuswide in the coming years.

Challenges [CFRs 3.5, 3.6, 3.8, 4.2]

The deep cuts in state support in recent years have presented UC Davis and the UC system with significant challenges. Ongoing economic belt-tightening calls for the kind of strong future planning at which the campus excels. The [2020 Initiative](#) was designed and initiated "to continue creating a university that can sustain its rising trajectory through its own best efforts, leveraging support from the state but rising above the fiscal limitations we now face," bringing together the dual priorities of financial sustainability and increased globalization.

The financial challenges have impacted education in several ways. Graduate enrollment growth has

slowed in recent years, as shown by the flattening of the cumulative percentage of growth in [Figure 1](#). This slowing of enrollment growth is due in part to the difficulty of providing adequate levels of financial support for graduate students in an atmosphere of rapidly escalating tuition. Interdisciplinary graduate groups have more difficulty finding instructors for courses since faculty are needed to teach within their home departments. In the professional schools, the tuition levels are reaching a competitive ceiling, limiting the ability of these programs to compensate for budget cuts through tuition increases. Finally, the 2020 Initiative mentioned earlier is a planning process for undergraduate enrollment growth. It is still necessary to integrate into it a complementary plan for graduate enrollment growth. Increasing undergraduate enrollments will intensify a need for more teaching space as well as inquiry into teaching technologies that require less space.

Current Priorities and Plans [CFRs 3.8, 4.1, 4.2, 4.3, 4.8]

Our campus is committed, through GE, discipline-specific coursework, and cocurricular experiences, to develop our students' intellectual, expressive, and creative skills; to facilitate individual success; and to enhance their contribution to society. We are committed to putting in place budgetary models that can support our deep commitment to maintain and perhaps modestly increase our enrollment levels of California residents, to the extent possible. We will continue improvements in our ESL program for all entering students with needs in this area, both those who did not speak English in their home country and those who grew up in the United States in homes where English may not have been spoken or spoken only rarely. We will continue to enhance our advising services to ensure that students engage in successful academic planning and graduate in a timely manner. At the same time, increasing the integration of graduate education into campus academic and strategic planning will remain a priority, as will ensuring the continued availability of excellent teaching faculty and high-quality classroom space. We will also continue to support faculty-driven methods of learning assessment and enhance the quality and impact of undergraduate program review.

These priorities have emerged through a vigorous dialogue involving faculty, staff, and administrators who have, in large and small meetings, regular working groups, informal conversations, and regular email exchanges, been in continuous consultation throughout the process of creating this report. The result is a truly collaborative presentation of information in these essays. This extends from the factual presentation of who we are as a campus, to the aspirational visions of where we plan to go. We hope to demonstrate that our commitment to growing our research resources, educating the next generation, and enhancing the student experience on campus remains strong, as reflected in the chancellor's "State of the Campus" address from February 28, 2013 (see [Ex. 8](#)).

Piloting Reports [CFR 1.9]

UC Davis was the first UC campus to participate in a newly created reporting format for the 2003 reaccreditation process, which resulted in a number of challenges and disadvantages: the campus was held accountable for changes made in a highly mutable set of guidelines as reporting requirements evolved from year to year. Campus reports were evaluated on criteria for the year of evaluation, rather than the year that the guidelines were issued, resulting in what appeared, in 2003, to be deficiencies to the WASC evaluators. We addressed these deficiencies, as outlined in our "Responses to Previous Reviews." We are again, in this accreditation process, leading the pack with our

participation in Pilot 1 as one of the first campuses and the only research university in the cohort. This has presented challenges as guidelines have been evolving and expectations fluid. For this report, the WASC leadership is holding us to the guidelines published in “Piloting the New Institutional Review Process” workbook released at the April 17, 2012 WASC workshop for Pilot 1 institutions.

Preparation for this Review [CFRs 1.9, 4.8]

In October 2012 (the beginning of Fall quarter, when our campus reconvened after summer), the provost and the Academic Senate chair charged a Joint Administration/Academic Senate WASC Steering Committee ([Ex. 11](#)). The committee met first in November 2012 and then again several times throughout January and February 2013 to provide guidance; input; and faculty, administration, and student perspective on the report preparation.

The report was prepared under the co-leadership of our WASC ALO / Interim Vice Provost of Undergraduate Education (VPUE) and the Academic Senate Vice Chair (ASVC), between November 2012 – March 2013. The VPUE sought input from the Undergraduate Deans Council, the Council of Associate Deans, and the Council of Deans and Vice Chancellors at those groups’ meetings.

The ASVC obtained advice from the Academic Senate Davis Division WASC Steering Committee, which included chairs of the Admission and Enrollment, Courses of Instruction, General Education and Undergraduate Instruction, Planning and Budget, Undergraduate and Graduate Councils, and Program Instruction and Program Review committees, and was chaired by the ASVC.

A core report preparation team met weekly with the VPUE, which included members of the Office of Undergraduate Education: the Associate Vice Provost, Assistant Vice Provost, Senior Writer, Project Manager, and Executive Assistant to the Interim VPUE; the Dean of Graduate Studies and Director of Analysis and Policy, Office of Graduate Studies; the Director of Academic Assessment and the Assessment Coordinator, Office of Academic Assessment; and the Lead, Institutional Analysis, Student Research and Information. The VPUE and ASVC remained in close communication to ensure activities were closely coordinated.

Many individuals and departments provided expertise for particular sections, including the Faculty Adviser to the provost; the Academic Senate Executive Director, the Associate Vice Chancellor of Budget and Institutional Analysis; the Office of Academic Affairs; the Division of Student Affairs; Student Housing; Office of Admissions; Capital Resource Management; and University Outreach and International Programs. Lastly, the report was informed by existing processes that by their very nature have broad campus inclusion, most notably the provost’s task forces for the 2020 Initiative and the Joint Administration / Academic Senate Special Task Force on Graduate Education.

UC Davis assessed itself against the WASC standards by attention to the Compliance Audit Checklist for Reaccreditation rather than assessing itself using the Self-Review under the Standards. In addition to the materials in this report, we will, by May 1, evaluate ourselves against the WASC Educational Effectiveness Framework and submit this to our WASC reviewers.

Essay 1-2: Meaning, Quality, and Rigor of the Degree / Graduation Proficiencies

What do we, the faculty at the University of California at Davis, want to be able to say are the qualities of a graduate of our institution? What are the qualities of a “well-educated” person, and how do those qualities prepare the undergraduate to live in a community, state, nation, and world increasingly complicated by scientific and technological change, by shifting demographics of ethnicity, and by the movement of people and ideas across national boundaries?

We resolved to take seriously the mission of a public university to educate its students toward becoming thoughtful, civically engaged participants of society.

[Report of the Task Force on General Education](#)

The UC Davis Mission and Vision [CFRs 1.1, 1.2, 1.3, 3.5, 3.10, 3.11]

As a University of California campus, UC Davis is committed to the [systemwide mission](#) to meet society’s most pressing needs by providing accessible higher education to Californians, developing new technologies, and cultivating leaders. The [UC Davis Philosophy of Purpose](#) articulates more fully our campus’s unique mission and character, while remaining aligned with the UC mission of “research, teaching, and service.”

These values underlie a UC Davis education at all levels and in all disciplines: students across the colleges are encouraged to participate in a culture of research and innovation, and have ample opportunities to engage in service and leadership. Our [graduate programs](#) are known for productive laboratories, progressive spirit, and the collaborative and interdisciplinary curricula offered by department graduate programs, [graduate groups](#) and [designated-emphasis](#) options, which bring together students and faculty from various academic disciplines to address the most pressing issues facing our state, nation and the world. Our master’s and doctoral graduates become leaders in their fields – researchers, teachers, mentors, policy makers, and entrepreneurs (see [Ex. 12](#)). The same commitments to excellence and service echo across the missions of each of UC Davis’s professional schools, speaking eloquently to our campus’s overarching goal of applying teaching and research to the common good.

While the UC Davis mission is rooted in the land grant tradition, we apply those values and priorities to addressing the challenges of the contemporary world. Our plan for much of the 2000-10 decade, “The UC Davis Vision: The Campus’s Strategic Plan,” included strategies to develop learning, discovery and engagement; accomplishments toward these strategies can be seen in the related annual progress reports ([Ex. 13](#)). The efficacy of the plan to increase extramural funding is demonstrated in a 150% increase in federal research awards over the decade.

The new decade has brought a new chancellor, a new provost, and an enhanced vision for the

campus. The current [Vision of Excellence](#), developed in 2010, presents a framework of action intended to inspire distinction. Its six principles speak with a renewed voice to the commitments of research, teaching, and service, while also prioritizing campus sustainability and expanding global outreach. The Senate Task Force on the Future of UC Davis made specific recommendations toward implementing the Vision of Excellence in its [November 2010 report](#). The Vision of Excellence serves as a broad blueprint for planning and a guideline for accountability: administrative and academic departments are held accountable to it through annual reporting; see reports by [Office of the Provost and Executive Vice Chancellor](#), [Administrative and Resource Management](#), [Student Affairs](#), and the [Office of Research](#).)

Looking toward the next decade, the [2020 Initiative](#) is a commitment to examine possibilities for sustainability and growth in accordance with the Vision of Excellence during the current climate of economic challenge. Those aspects of the Vision of Excellence and 2020 Initiative that address institutional planning and sustainability are addressed in more detail in Essay 4.

Responsibility for Degree Programs [CFRs 2.2, 2.4, 3.8, 3.9, 3.10, 3.11]

As a major research university, UC Davis offers a full range of baccalaureate programs, is committed to graduate education through the doctorate, master's, and professional degrees, and gives high priority to research as well as undergraduate and graduate student learning.

Under shared governance, the University Regents explicitly delegate to the faculty responsibility for courses and curricula of all degrees. Through the [Bylaws of the Academic Senate](#), the faculty have placed authority for undergraduate programs with each campus's Divisional Academic Senate committees responsible for undergraduate education. Authority for graduate programs is held by the systemwide [Coordinating Committee on Graduate Affairs](#) (CCGA), which has stringent minimum standards for maintaining the quality and rigor of UC graduate degrees, as expressed in its [handbook](#). At the divisional (campus) level, the [Graduate Council](#) has authority over graduate programs and reports to CCGA. At UC Davis, both the Senate's [Undergraduate Council](#) (UGC) and Graduate Council provide a strong link between the Academic Senate and the administration. The Dean of Graduate Studies and the Vice Provost of Undergraduate Education are non-voting ex officio members of Graduate Council and UGC, respectively. (The specific responsibilities and authorities of the Graduate Council and UGC are found in Divisional Senate Bylaws [Section 80](#) and [Section 121](#).)

A bachelor's degree from UC Davis signifies attainment of foundational subject-area knowledge in a chosen degree program; equally important, it indicates a breadth of knowledge and a range of literacies or competencies which are crucial both for a creative and productive career, and for thoughtful, engaged civic participation. Thus, [college](#) and [major](#) (subject-area) requirements are accompanied by an expanded [GE requirement](#) designed to develop competencies across the disciplines, as well as topical breadth. The undergraduate educational objectives and the GE requirements, described in detail below, address the UC Davis approach to an undergraduate education with both breadth and depth.

Graduate degrees presuppose literacies, breadth and subject-matter knowledge, and a bachelor's degree comparable in quality to a degree from the University of California. While all master's and

PhD degrees must meet certain broad [requirements](#), the meaning of graduate degrees varies with the array of [graduate programs](#) offered (see below for a description of degree requirements). Some programs admit students only for the PhD; others such as the MBA and the MFA admit students for the master's degree. Master's degrees other than the MS and MA are nearly always considered to be terminal degrees. A significant number of academic programs offer only the master's degree. Professional master's degrees (e.g. MBA, MPAc, MPH) and first- professional doctorates (e.g. JD, MD, and DVM) signify in-depth mastery of a focused subject area and preparation for practice in a profession requiring an advanced body of knowledge.

Undergraduate Degree Requirements [CFRs 1.2, 1.7, 2.1, 2.2]

UC Davis confers the Bachelor of Arts (A.B.) or Bachelor of Science (B.S.) degree in [101 programs](#) in four Colleges of [Engineering](#) (CoE), [Agricultural and Environmental Sciences](#) (CAES), [Biological Sciences](#) (CBS), and [Letters and Sciences](#) (CLS). The latter encompasses the Divisions of [Mathematical and Physical Sciences](#) (MPS); [Social Sciences](#) (DSS); and [Humanities, Arts, and Cultural Studies](#) (HArCS).

The [University requirements](#) of Entry-Level Writing and American History and Institutions indicate an expectation for all students of functional competency in written communication and awareness of the principles of American government and society – a context for developing social thought – as groundwork for college-level work. Residency requirements ensure sufficient time on campus to earn a UC Davis degree. College requirements set standards specific to each college ([CAES](#), [CBS](#), [CoE](#), [CLS](#)) for credits taken in the major, credit limits, pass-fail options, and similar issues. Major Requirements are the concentration of discipline-specific courses that together give an undergraduate student the knowledge essential to their field of study. While all undergraduates must complete 180 units to graduate, the number of units required in major subject coursework varies by discipline, and in some instances by degree objective (e.g., the AB in [Anthropology](#) has 60-66 required units while the BS in Anthropology requires 99-105). Requirements for all undergraduate [degree programs](#) are available online, along with information about the programs and lists of affiliated faculty.

Graduate Degree Requirements [CFRs 1.2, 1.7, 2.1, 2.2, 2.4, 2.6, 3.11]

[Graduate Council](#) reviews and approves all degree requirements developed by graduate programs. Any changes to the degree requirements must be approved before adoption, and all [approved degree requirements](#) are archived by Office of Graduate Studies. Graduate degrees must meet specific criteria as well as the systemwide [CCGA requirements](#). The MA and MS degrees require a minimum one year in residence and 30 (thesis-based) or 36 (comprehensive examination-based) units of graduate level coursework, and demonstration of a level of mastery through a [capstone requirement](#) (most commonly a thesis, project, or comprehensive exam).

The doctoral degree signifies the highest level of academic achievement through both advanced learning and original research. As doctoral degree programs are research-oriented, courses of study are less prescribed, allowing faculty to help doctoral students tailor the program of study to match individual research interests. There is no minimum unit requirement for the doctorate, although most programs range between 36 and 72 units (one to two years of full-time coursework), of which

16 units might typically be in courses required by all students in the program. Doctoral degrees also require a minimum of two years of resident study. PhD candidacy requires passing of qualifying examinations administered by a five-member faculty committee; the degree requires completion of a dissertation bearing on the principal subject of study and of such character as to show ability to prosecute an independent investigation. Most programs also require an exit seminar or examination.

Graduate student education and the graduate school experience are modeled on the apprentice or intern tradition. The mentor transfers knowledge and skills to the student, who then develops new knowledge and skills through work on independent and joint projects. Mentors provide advice on academic programs and issues related to professional and career development to guide graduate students toward the completion of their degree and the onset of their professional career. (Mentorship is discussed further in Essay 3 of this report.)

Professional degrees require significantly more coursework than the academic graduate degrees. Subject matter in these programs is often prescribed by disciplinary accrediting agencies, although our faculty develop programs that draw on the strategic advantages of UC Davis. Most UC Davis professional programs are separately accredited by one or more professional organizations ([Ex. 6.1 PR](#)), indicating that our graduates perform to rigorous, nationally set standards; for example, see the [American Bar Association Standards and Rules of Procedure for Approval of Law Schools](#). UC Davis law school graduates recently ranked [fourth in the state](#) for Bar exam passage rates (89.1%), with a [first-time passage](#) rate of 78.9%.

In addition to degree requirements, every graduate program at UC Davis is required to maintain a set of bylaws approved by the Graduate Council. The bylaws are typically based on a standard template ([Ex. 15](#)) and describe how the program is to function, especially the criteria for membership in the program and a committee structure that is designed to oversee the educational effectiveness of the program. Many UC Davis graduate programs are designed as interdisciplinary graduate groups, bringing together faculty from different departments, schools and colleges around a shared academic interest and vision to offer a free-standing graduate degree program. Bylaws are particularly important in defining the operation and governance of graduate groups, although department-based programs benefit from the clarity on operational details.

Institutional Educational Objectives

Educational Objectives for Undergraduate Students [CFRs 1.7, 2.3]

The UC Davis [Educational Objectives for Undergraduate Students](#) broadly articulate our campus expectations for undergraduate learning. The seven objectives address the acquisition of competencies and subject-area knowledge; cultivation of character; and preparation for lifelong learning. The objectives were drafted by faculty and administration participants at the 2001 Chancellor's Fall Conference; the Committee on Educational Policy (CEP) approved the final version during spring 2002. Soon thereafter, the newly established UGC replaced CEP, and was charged with the continued oversight of the application of educational objectives in the curriculum.

The Educational Objectives have been deliberately integrated into academic programs, both through

the 2004 and 2008 revision of the Academic Program Review process ([Ex. 16](#)), and the [new GE requirements](#), effective Fall 2011 ([Ex. 10](#)). The educational objectives are published in the [General Catalog](#) (p. 96) and on the [VPUE website](#), and they inform cocurricular planning (see Essay 3). These objectives were the starting point for establishing learning outcomes for our undergraduate degree programs. Exhibit [5.1 UG](#) documents the publication of program learning outcomes (PLOs) in all UC Davis undergraduate programs.

Educational Objectives for Graduate Education [CFRs 1.7, 2.3]

The [objectives for graduate education](#) approved by Graduate Council in 2005 provide a broad statement of campus aspirations for graduate program outcomes. The five objectives address the importance of fostering ethical behavior and an appreciation for the diversity of scholarship, especially through collaboration; cultivating independence, creativity and leadership; and fostering communication, teaching and mentoring skills. The objectives have been articulated through expectations of the program review process (see below for details). Graduate program degree requirements integrate specific learning outcomes that build on these campus objectives. Exhibit [5.1 GR](#) summarizes programs' learning outcomes and documents where they are available.

General Education [CFRs 2.2, 2.3, 4.4]

As noted in the Introduction, GE revision and assessment has been an ongoing area of development in the campus's reaccreditation history. In response to feedback from the 2003 WASC Review Team, the Academic Senate created a [GE Task Force](#) to reconceive the GE Requirement. Rather than "tinker with the pieces of a failing program," the GE Task Force took seriously the mission of a public university to educate its students toward becoming "thoughtful, civically engaged participants of society who might be asked to consider matters requiring a critical understanding of science, economics, history, social relations, and global forces." The Task Force developed core "literacies" it wanted UC Davis undergraduates to acquire and further develop. These literacies form the core of our undergraduate competencies as discussed in the Task Force's [January 20, 2007 Report](#) (pp. 4-5). The resulting GE plan comprises 35 units of core literacies as well as 52 units of topical breadth courses.

Implementation of the new GE [CFRs 1.7, 2.2, 3.8]

The Academic Senate created a [GE Implementation Task Force](#) to develop course qualifications for GE credit. At present, qualifications for each literacy are listed in the [course approval](#) descriptions. An undergraduate course is eligible for assignment to a topical breadth area if it takes a critical, analytical perspective on knowledge in that area. In Spring 2011, advisers from all colleges attended training sessions led by the CLS assistant dean. In addition, a well-designed [GE Search Tool](#) helps students and advisers identify GE courses that meet their needs. In Fall 2011, the [revised GE requirement](#) went into effect, requiring all incoming undergraduates to complete the revised GEs in addition to their college-specific and major course requirements. From 2010-2012 the Academic Senate [Committee on Courses and Instruction](#) (COCI) systematically reviewed and approved about 4,000 courses to conform to the new GE requirements. COCI continues to review courses with GE impact as academic departments propose new or revised versions of their GE courses.

Assessment for the new GE [CFRs 2.3, 2.4, 4.4, 4.6]

The assessment of GE objectives has been taking place for several years, albeit indirectly. The campus GE literacies and objectives largely align with the institutional educational objectives (see [Ex. 19](#)) and for the past seven program review clusters, the majority of programs have analyzed survey evidence regarding student attainment of these objectives. In 2010-11 the General Education Committee (GEC) of the UGC initiated a formal approach to assess the revised GE requirements (see [Ex. 10](#)). The effort was constrained by limited campus resources; nevertheless, instructors of approved GE courses from across the colleges were sampled in regard to their plans for meeting the new GE criteria. From this information, some courses were surveyed to assess how specific core literacies (writing experience; scientific literacy; and American culture, history and governance) are met. Three graduate student researchers were supported on a grant obtained by the committee chair from the Spencer and Teagle Foundations to assess specifically the “writing experience” sample (see [Ex. 34](#)).

While work on assessment continued into 2011-12, the GEC had to focus attention on the review of remaining GE courses and adapting review procedures to address inconsistencies revealed during the implementation of the new GE requirements. In Fall 2012, the GEC returned to GE assessment and reviewed assessment tools, approaches, and rubrics of other institutions of higher education. The Director of Academic Assessment made a presentation to the GEC ([Ex. 50](#)). The UGC has adopted a resolution on GE to formalize assessment of campuswide GE requirements by integrating the assessment at both the program level and campus level. The approach complements program review, using similar methods and overall goals whenever possible. To facilitate this similarity, campus programs are encouraged to consider aligning PLOs with the GE requirements. The resolution contains a broad timetable to evaluate each of the eight literacies that make up GE and establishes mechanisms whereby samples of student work will be included in the assessment. When the resolution receives Executive Council approval, the Senate and administration will cooperatively determine optimal means by which to implement the assessment plans.

Cocurricular Pathways [CFRs 2.11, 4.4]

At UC Davis, experiences both in and outside of the classroom allow students to “cultivate the virtues,” and develop leadership skills and a global perspective. As is appropriate at a residential university, diverse opportunities for participation in [education abroad](#), [internships](#), [campus clubs](#), and [undergraduate research](#) provide important elements of the degree. The role of cocurricular activities in accomplishing the educational objectives and in supporting student success, and the university’s commitment to offering high quality cocurricular programs, are discussed at length in Essay 3.

Quality and Integrity of the Degree [CFRs 1.7, 2.1, 2.2, 2.6, 2.7, 3.8, 4.4-4.8]

The Davis faculty are engaged in maintaining the quality and rigor of both their own particular courses, and of the UC Davis degree at the program level. [Graduate Council](#) and [UGC](#) and their various associated committees, along with the [Committee on Courses of Instruction](#) (COCI), are charged with oversight of program and course establishment, review, and changes. The [UC Compendium](#) includes a detailed description of the system level requirements of the creation,

modification and termination of academic degree programs and academic units to which all such actions at the divisional level must conform. This includes a system of regularly performed reviews for existing programs, and rigorous, multi-layered review processes for the establishment of new programs and changes to existing ones, which are in large part driven by faculty.

Program Review

Undergraduate Program Review [CFRs 2.4, 2.6, 2.7, 2.10, 3.8, 4.4, 4.5, 4.6, 4.7, 4.8]

Following the 2003 reaccreditation process, the Academic Senate specifically charged the UGC and its subcommittee, the [Undergraduate Instruction and Program Review](#) (UIPR) committee, to incorporate the newly adopted campus educational objectives, and to increase educational effectiveness by looking more closely at results and less at inputs. The revised guidelines ([Ex. 16](#)) adopted in 2004 assert the importance of educational objectives and evidence of educational effectiveness; the [report](#) on that process reiterates that importance, while asserting that the UGC believes that the programs themselves are most qualified to select methods for evaluating educational effectiveness that are appropriate and meaningful to them. The guidelines and [template](#) for program review were revised in 2008 ([Ex. 17](#)). The current template calls for analyses of [institutional data](#) about students and faculty, curricular analysis, alumni surveys conducted by [Budget & Institutional Analysis](#) (BIA), and data from the [University of California Undergraduate Experience Survey](#) (UCUES). Similar to the National Survey on Student Engagement (NSSE), UCUES is a survey commonly used by the UC campuses to evaluate the undergraduate student experience.

The current undergraduate review process is a multi-year procedure that involves faculty at all levels: department/program, college, and Academic Senate, and administration (see [Ex. 17](#)). Program review is a process that includes the undergraduate programs in CAES, CBS, and CLS. College of Engineering (CoE) undergraduate programs have their own program review under a separate [ABET](#) accreditation process, and are not included in the UIPR. However, because the quality of undergraduate programs affects all undergraduates, CoE faculty are represented on the Academic Senate UIPR committee.

The UIPR program conducts systemic analysis across colleges of similar programs by grouping the programs into seven clusters, reviewed by faculty outside of the department/program on a [scheduled rotation](#). Because similar programs housed in different colleges (e.g., Managerial Economics in CAES and Economics in CLS) are reviewed concurrently in a cluster, the timing allows faculty from other departments and colleges to share the examination of relevant curricula and student learning experiences.

The UIPR committee is responsible for the review of 8 to 16 undergraduate degree programs per year; the exact number of programs reviewed each year varies by cluster. Undergraduate programs also engage in some form of self-assessment or curriculum review on an ongoing basis; some examples are given in the “Teaching and Learning” section below. The UIPR process reinforces these self-assessments and provides an outside perspective on the undergraduate degree program.

The objective is to complete a UIPR cluster review within three years from initiation to completion.

Since the inception of this review process, three cluster reviews have been completed. The fourth will be completed by the end of 2012-13; Cluster 5 is moving from the colleges to UIPR; Cluster 6 reviews have been completed (for the most part) at the departmental level and are moving to the college level; and Cluster 7 reviews are just beginning (The Budget and Institutional Analysis division has generated the data for departments; programs began their self-studies in February 2013). In the event that an expedited review is needed, UIPR has established a review process that could be completed within one academic year. This expedited review process is currently being used on a trial basis for two program reviews.

The UIPR assessment process includes the examination of undergraduates' learning experiences at the college level by the Faculty Executive Committees (FECs), administrators, and multiple levels of Academic Senate review committees. These conversations across colleges about undergraduate learning experiences would not happen in the same manner without the UIPR process. The process and changes enacted as a result of a thorough program review highlight faculty involvement with assessing undergraduate learning.

Effecting Change with Undergraduate Program Review [CFRs 2.7, 4.4, 4.5, 4.6, 4.7, 4.8]

Program review is intended to identify and effect changes for the improvement of factors related to educational effectiveness within each program. In a number of documented instances, the campus followed up on program review recommendations and implemented changes (see [Ex. 21](#)).

The iterative and informative nature of program review can be seen within a single review. The 2010-11 Community and Regional Development (CRD) program review exemplifies how feedback from the program review process helps faculty reshape students' learning experiences. This process occurs both across multiple program reviews and within the three-year process of a single program review moving from departmental self-study to the UGC and the provost's Office.

For instance, the 2010-11 CRD review notes that the previous review conducted in 2005-06 had identified concerns with grade inflation, access to required courses, problems with the content on the department's website, and a lack of rigor in the major. The 2010-11 self-study noted how each of these issues was addressed by departmental faculty and had led to changes in grading, website content, and curriculum (i.e., two mathematics and/or statistics courses were added as requirements). The CAES program review committee and the UIPR committee both acknowledged and commented on CRD's changes in response to the previous program review.

However, the 2010-11 CRD data brought areas where additional improvements could be made to the faculty's attention. The student survey data and the student interviews indicated that under-explanation of the major still lends itself to confusion among students considering CRD as a major and resulted in potentially delayed entry into the major. In part, the changes to the website were not sufficient to address student concerns. To overcome this problem, CRD took two steps:

- Introduced a quarterly "All-Hands Meeting" at which the faculty are introduced and former students talk about how they navigated their academic career in the major; this meeting works along with creating a process where experienced students from the CRD Club could

provide mentoring to incoming students.

- Examined the different mechanisms for explaining CRD requirements to students enrolled in the major as well as mechanism for promoting and advertising the CRD major.

The UIPR reviewed the steps taken by CDC. UIPR committee reported to UGC and commented favorably on actions taken; UGC found them acceptable, but had some questions about FTE ratios on some tables. Those additional questions were answered as well by CRD. The CRD program review shows how the process of review and correction takes place and how changes can be implemented as departments, college committees, and UIPR reviews materials and provides feedback to programs.

Informing College Planning [CFRs 4.1, 4.3, 4.4]

At the college level, faculty decide how to make use of the findings of the program reviews. After a cluster review by the Faculty Executive Committee in CAES, a 2012 CAES *ad hoc* Curriculum Planning Committee was appointed to provide a comprehensive review of that college's curriculum to make recommendations on issues raised via program review in addition to other issues affecting majors (see [Ex. 22](#), pp. 20-23). The committee's analysis and recommendations across all CAES program reviews exposed repeated needs throughout a single college. The report cites a need for improvements (and makes several recommendations), such as additional advising resources for programs; critical need for sufficient teaching assistants to support laboratory, field, studio, and writing intensive courses; and improved inter- and intra-college coordination of courses and prerequisites. The findings of this report, which provides evidence of college-level assessment and deep thinking about the continuous improvement of student learning, will guide the strategic planning in that college.

“Closing the Loop”: Making the Undergraduate Program Review Process More Meaningful [CFRs 3.8, 4.1, 4.3, 4.4, 4.6, 4.7]

The review process itself is undergoing regular assessment by the UIPR committee. In the last year, UIPR committee has observed that while the cluster system of program reviews has the intention of creating cross-college synergies, this objective is not always achieved because reviews have run behind schedule. A second concern is that, in contrast to the graduate program reviews, UC Davis is the only UC campus that does not use off-campus external reviewers for undergraduate program review. The UIPR committee has recommended that the undergraduate review process incorporate external review and that resources be made available for that purpose. The provost is strongly supportive of the deployment of external reviews becoming standard in this process. Toward this objective, external reviewers are being used in the two expedited reviews we are piloting this year, and these reviews will serve as test cases for possible change to the process for all program reviews. The Executive Council will make a determination about the capacity in which external reviewers will be used in the future. Finally, a third concern is that evidence exists of insufficient follow-through on recommendations that are developed during the review. The UIPR committee, reporting to the UGC on January 25, 2012, noted that recommendations made by faculty at the department and college levels are not implemented effectively at the administration level and are not acted upon ([Ex. 20](#)). Several suggestions were offered for more explicit actions to improve accountability and responsiveness to recommendations as the program review moves from Faculty Executive

Committees (FECs) and deans to the Academic Senate and the provost.

In Spring 2012, the UGC began officially copying department chairs and program directors when the full program review documentation was turned over to the provost. Having the full program review documentation available after the UIPR committee and UGC have reviewed it allows the department to implement changes recommended not only by the college-level committee but also by university-wide committees.

Also in Spring 2012, UGC decided to invite deans to attend a UGC meeting following completion of a cluster review of programs. This meeting would facilitate a conversation in response to issues raised during the review process. While the deans' offices have been involved in the existing process (i.e., signatory approval alongside the colleges' FECs), the deans and UGC have not had discussions of how resource allocation issues impact suggested changes to programs. This lack of collaboration can yield disconnections between the recommendations that emerge from the program review process and the day-to-day support for undergraduate programs within a college.

In Fall 2012, the Executive Council of the Academic Senate charged the UGC to conduct a comprehensive review of the existing processes for undergraduate program review and assessment, and to make recommendations for improvements. This proposal will be reviewed by Executive Council in the near future. The provost has indicated his strong support for these attempts to better align the reviews of programs' academic content with ongoing assessment of units' administrative effectiveness and use of resources.

Program Learning Outcomes and Assessment [CFRs 2.3, 2.4, 3.1, 3.8, 3.11, 4.4, 4.6]

The Academic Senate and VPUE have worked in partnership toward the now achieved goal of having PLOs in all undergraduate majors. Initially, the [Center for Excellence in Teaching and Learning](#) provided training to departments, and reference materials used the institutional educational objectives as a starting point. The WASC 2010 action letter recommended that the campus go beyond developing PLOs to include the development of corresponding assessment plans. In 2010-11, we added the goal of identifying what evidence might be used to determine that students have achieved the stated learning outcomes. As a result, a number of programs piloted assessments, including the Department of French and Italian in upper division French ([Ex. 23](#)). Some programs, such as [Chemical Engineering](#) and other CoE majors, have had highly developed assessment plans in place for some time. (See [Ex. 5.1 UG](#) for a full accounting of educational effectiveness indicators across all undergraduate programs.) In 2011-12, recognizing the complexity of a university of our size and the importance of conducting meaningful assessment, the provost approved the creation of a new [Office of Academic Assessment](#) (OAA) to support faculty engagement in the process (see Essay 4 and [Ex. 24](#) for further discussion).

In Fall 2012, the Executive Committee formally charged the UGC with reviewing and developing guidelines for PLO assessment. All majors have now established [PLOs](#) and a preliminary analysis using the WASC Rubric for Program Learning Outcomes was performed in early January by a group of faculty and staff led by the OAA, and then presented to the UGC ([Ex. 25](#)). It is vital to the UGC that the preliminary learning outcomes analysis be placed in proper context. The Academic Senate

encouraged a faculty-led effort to create PLOs, securing them for 100% of our programs, despite limited resources. During this process, the priority was on identifying outcomes that reflect the specific missions of our various departments, rather than developing a one-size-fits all or top-down approach. Still, there is room for improvement. The UGC's next steps for PLOs will focus on refinement as they consider how to align outcomes with methods for evaluating student performance, where appropriate, and will also more closely align PLOs with institutional and GE priorities. In these efforts, UGC will engage in a process consistent with the iconic AAHE "Principles of Good Practice for Assessing Student Learning," which both recognizes the uniqueness of our programs and students, and ensures partnership between faculty and administration on assessment. The UGC has now approved a resolution on learning outcomes assessment that directs departments and programs to assess the degree to which their majors are attaining the stated learning objectives and requires programs to report progress to the Chair of the Academic Senate by the beginning of Fall 2013. The resolution notes that assessment results also are to be evaluated at the time of program review ([Ex. 26](#)). Finally, a pilot program initiated by the VPUE Office and Academic Senate in Winter 2013 aims to encourage programs in the course of future program reviews to utilize direct evidence and incorporate an analysis of student work reflecting attainment of these objectives ([Ex. 27](#)).

Graduate Program Review [CFRs 2.4, 2.6, 2.7, 2.10, 3.8, 4.4, 4.5, 4.6, 4.7, 4.8]

UC Davis's graduate program review is a robust process that includes both quantitative and qualitative measures. It focuses on specific criteria for individual student success in each program and assesses the progress and success of students who are enrolled, and who have graduated during the period since the prior review. Graduate programs are reviewed every 8-10 years according to a published [schedule](#) and [guidelines](#). Reviews are grouped by similar disciplines in a given year in order to facilitate comparison across programs. The review process has been in place for more than 4 decades and is regularly examined and updated by the Graduate Council. Most recently, Graduate Council formed a Program Review Revisions Committee in 2009-10. The current process is depicted in [Exhibit 28](#).

Graduate Council is responsible for the review of 94 [graduate programs](#), 18 [designated emphases](#), and four graduate academic certificates. The only degree programs which are not reviewed by Graduate Council are the DVM, JD and MD degrees. Oversight of these three first-professional doctorate degrees has been delegated to their respective professional schools, and the reviews are performed by well-established outside accreditation agencies (see [Ex. 6.1 PR](#)). All other graduate degrees are under the jurisdiction of the Graduate Council of the Academic Senate, and are subject to the normal program review procedures of the Council. However, where a professional degree is accredited by an external disciplinary organization, the Graduate Council reviews the accreditation report and may elect to accept it in lieu of its own review provided that the agency addresses the issues of interest to Graduate Council. Alternatively, Council may elect to conduct a separate review under its normal procedures.

Two subcommittees of Graduate Council coordinate the reviews and prepare recommendations for final action by Graduate Council. The Program Review Committee initiates graduate reviews, assists programs during the preparation of review materials, coordinates the review logistics, and finally makes recommendations to Graduate Council. The Program Review Closure Committee is

responsible for collection and review of responses to the recommendations, and for recommending to Graduate Council whether a review should be closed, or whether additional action is needed.

The review process results in a formal report issued by Graduate Council, acting on behalf of the divisional Academic Senate faculty, with a set of recommendations targeted to those who are in a position to act (e.g. the program faculty, program chair, Academic Senate chair, deans, provost and/or chancellor). Specific deadlines for follow-up are imposed and the review is formally closed only after satisfactory responses are received. The cycle of preparation, review and follow-up normally takes about three years.

Reviewers external to the campus are used for all PhD and MFA degrees. For all reviews, three faculty with expertise in the area being reviewed, but with no formal connections to the program, are appointed to an *ad hoc* review committee which conducts a two-day onsite review. The *ad hoc* committee is joined during this period by the external reviewer, although each provides a separate report to the Program Review Committee.

The reviewers are provided with the program's detailed self-review report ([Ex. 28](#)), in which the program's faculty must articulate program goals and expected outcomes and the means of assessing achievement of intermediate and final goals of each degree, such as mandatory annual progress reviews, required research presentations, preliminary exams, oral qualifying exams, capstone activities (dissertations, theses, projects, examinations, professional performances, exhibits, etc.), job placement, and a description of where the program is ranked within the UC system and nationally.

The review by Graduate Council includes an assessment of the extent to which the program has implemented recommendations generated during the prior review. Because the Office of Graduate Studies retains records dating back 40 years, reviews can expose long-term trends and deficiencies that need to be addressed.

Data on program performance are routinely collected and analyzed as part of the regular graduate program review process. The Office of Graduate Studies provides detailed statistics to the program and the review team, including GPAs and GRE scores of entering students, where the undergraduate degree was obtained, the number of applicants, number of admits, and number of matriculating students on a yearly basis since the last review. In addition, the percentage of students completing the program of study and time-to-degree are provided, and the review committee frequently comments on these if they vary from the norm. Finally, programs receive information about fellowship and stipend support received by each enrolled graduate student. During the review, this information is analyzed at the program level by the faculty, the reviewers and finally the Program Review Committee.

Employment opportunities and placement of students completing the program are important facets of the review that both the program, in its self-assessment, and the reviewers in their appraisal, are asked to comment upon. Students and faculty are asked to complete a confidential questionnaire which is intended to gauge their satisfaction with the management of the program. Students are asked to comment on their satisfaction with funding, mentorship from the faculty and the quality and availability of coursework.

The external reviewer and the *ad hoc* committee prepare separate reports. The *ad hoc* committee members are provided an optional template ([Ex. 28](#)) for preparing their report and are asked to comment on the standing of the program within UC and nationally. The review committee is specifically tasked with assessing the availability and adequacy of coursework, the quality and adequacy of existing faculty, faculty mentorship, student morale, whether facilities and space are adequate to support the graduate program and the research of graduate students, and whether student financial support is appropriate for the field. In those disciplines where students are expected to publish their work, the committee is asked to comment on the quality and productivity of student/faculty publications. The committees are then asked to summarize the strengths and weaknesses of the program. The *ad hoc* committee chair presents the review reports to the Program Review Committee.

Based on the external and *ad hoc* reports, Graduate Council reviews the strengths and weaknesses of the program and submits their findings and recommendations to the program, the lead dean for the program and other administrative units as needed. Graduate program reviews are geared toward improving the quality of each program. Thus, the normal outcome is a set of recommendations for action as suggested above. If the Graduate Council's concerns are significant (especially regarding faculty availability and commitment) the next review may be scheduled earlier than the normal eight-year cycle. However, some reviews uncover more serious deficiencies that require significant changes to the program. In those instances, the Graduate Council suspends admissions to the program pending correction of identified deficiencies. In most cases, the program is provided time to correct any identified deficiencies but the review is not formally closed until all issues have been cleared. In more serious cases, the Graduate Council can and does close a program completely with the review and approval of the systemwide Academic Senate Coordinating Council on Graduate Affairs.

Effecting Change with Graduate Program Review: Academic Quality [CFRs 2.7, 3.8, 3.11, 4.4, 4.6, 4.7]

While program closure is a dramatic action, it is used by the Graduate Council to ensure that the overall quality of graduate programs at UC Davis is maintained. The near-closure of the [Geography Graduate Group](#) (GGG) following its 2007 review provides an illustration. The review of the GGG raised concerns regarding the overall quality of the graduate program, the rigor of its admissions requirements, and financial support for its students. The most important issues identified were a lack of focus in the training of students, the absence of a clearly defined curriculum, and an inability to articulate a key set of disciplinary concepts that all students emerging from the program should have mastered. Since these findings were similar to those raised during the graduate program review conducted in 2001, Graduate Council limited Fall 2008 admissions to 15 students and provided the program an opportunity to take corrective action.

Following the review of the materials submitted by GGG, the Educational Policy Committee (EPC) and the Program Review Closure Committee (PRCC) of Graduate Council concluded that GGG had not made significant progress in addressing the concerns arising out of the last two program reviews and that their plans for addressing the concerns raised during the review were inadequate. Based on the recommendations of the EPC and PRCC, Graduate Council suspended admissions to the GGG in October 2009. The GGG was provided with an opportunity to appeal the discontinuance by the end

of Winter 2010 by submitting a proposal that addressed all concerns raised, but was notified that an unsuccessful appeal would result in disestablishment of the graduate program. As per policy, Graduate Council informed the Coordinating Council of Graduate Affairs (CCGA) of this action.

The GGG submitted an appeal in Winter 2010 with extensive documentation of planned changes in the program and with firm commitments from interested faculty with appropriate expertise in the field to rethink and revitalize the program. The appeal was reviewed in a manner that mirrors the review process used by CCGA for new graduate program proposals. Effectively, the faculty in GGG were expected to demonstrate that the program should be re-established, just as the faculty must demonstrate that a new program should be established, and demonstrate that it will meet campus and university-wide expectations for graduate education. Graduate Council appointed a faculty review coordinator with extensive experience in the graduate program review process. The review coordinator recruited three external reviewers from major research universities. In May 2010, the review coordinator presented the findings of the reviewers of the appeal of the proposed discontinuance to Graduate Council. Based on their findings, Graduate Council voted to reopen admissions to the program for Fall 2011, pending approval of revised degree requirements and bylaws by Graduate Council. The review process resulted in a revitalized program in geography with faculty - including several new hires - who are committed to maintaining a robust graduate program. Consistent with the process for new programs that have been approved by CCGA, the GGG was placed on an accelerated review scheduled for 2014.

Overall, the review of the Geography Graduate Group demonstrates that the system of graduate program review used by UC Davis is thorough, and in cases where serious concerns regarding the educational rigor of the graduate program are raised, processes are in place to either bring the program to an appropriate standard or to disestablish the program.

Effecting Change with Graduate Program Review: Student Safety [CFRs 3.8, 3.11, 4.4, 4.6, 4.8]

During the 2008 program review of the Art Studio MFA program, it was found that the facilities used by students were unsafe and unhealthy. In July 2008, Graduate Council sent a recommendation to the Dean of Humanities, Arts and Cultural Studies (HArCS) and the Director of Environmental Health and Safety to investigate and correct the identified problems. During the summer of 2008, extensive cleaning and maintenance was done in the MFA Studio Building, including a clean-up effort to eliminate all extraneous debris, furniture, and old materials inside the building; in addition, the heating/cooling and ventilation/exhaust systems were upgraded. The program implemented an ongoing pest control maintenance program, a regular trash pickup system, and safety procedures to dispose of hazardous materials. The building was then inspected by the Fire Marshall and passed inspection. In November 2008, Graduate Council received confirmation from the Dean of HArCS that immediate problems had been addressed, and that responsibility for the continued oversight of safety and cleanliness of the building rests with the Art department's safety coordinator. In April 2009, the Program Review Closure Committee confirmed that this and all other recommendations had been addressed, and the Graduate Council closed the review in May 2009.

Student input during the 2011 program review of the Anthropology graduate program indicated that

students felt unsafe in the basement of Young Hall where they are assigned office spaces. In July 2011, Graduate Council directed a recommendation to the vice chancellor for Administrative and Resource Management and the dean of Social Sciences requesting that “a safety audit be performed by the Police Department (and/or other appropriate safety unit) that will result in a substantial improvement in the safety conditions for graduate students.” In August 2011, the Police Department performed a physical security survey that identified safety measures to be corrected. In parallel, the Dean charged the space planner and safety officer for the division to investigate and correct the problems. In January 2012, the Dean requested funding in the amount of \$13K to address the Program Review Committee’s concerns about improving interior lighting and restricting access to the basement of the building. In March 2012, \$20K was allocated to address these and other high priority facility issues in the building. All safety related items were addressed immediately (e.g., lighting). In addition, some painting, ceiling tile replacement, and repairs were performed. The work was completed in early September 2012.

These two examples illustrate that program reviews conducted by the Graduate Council not only rectify academic issues, but also serve to remedy non-academic concerns that arise from solicited input from students. While the examples show that the administration is proactive in correcting problems once they are brought to their attention in order to ensure that graduate students are able to work in an environment that facilitates learning, more consistent oversight and assessment of facilities should help all levels of the administration, including deans, vice chancellors and the provost, focus on resource needs and means to investment in maintenance before conditions become severe.

Curricular Integrity

Establishment and Revision of Academic Degree Programs [CFRs 2.1, 2.2, 3.8, 3.11]

Proposals to establish, reconstitute, or discontinue a degree program undergo a thorough review process as outlined in the UC Davis policy on Establishment or Revision of Academic Degree Programs, summarized in the Approval Process for Academic Programs flow chart ([Ex. 29](#)).

New undergraduate degree programs require a proposal (see [Ex. 29](#)) formulating plans for the program, establishing a series of core and elective courses, anticipated faculty needs, projected impact on other programs, and bylaws. The proposal must be approved by the relevant college’s executive committee and recommended by its dean, who forwards approved proposals to the Academic Senate for review by the UGC. Upon UGC approval, the proposal is forwarded to the VPUE for recommendation to the senior administration and campus approval. (The proposal for one of our newest majors, [Sustainable Agriculture and Food Systems](#), for example, underwent extensive revisions to gain approval at these various levels of review prior to its official launch in 2011; the major is described in detail in Essay 4.)

Systemwide approval for changes to undergraduate curricula is required only for programs involving a title unique to the campus, or undergraduate/graduate hybrid degree programs.

The Procedures for Establishing a New Graduate Degree Program provide a detailed description of

what is required by Graduate Council to create a new graduate degree. Programs approved by the Graduate Council are forwarded to CCGA, the systemwide Academic Senate committee charged with review and approval of new graduate programs. This review normally involves a thorough assessment by four experts in the field, two from universities outside the UC system and two from other UC campuses. Reviewers are asked to comment on the: 1) quality and academic rigor of the program; 2) adequacy of the size and expertise of faculty to administer the program, 3) adequacy of the facilities and budgets, 4) availability of an applicant pool and 5) expected program outcomes and placement prospects for the graduates. A new program is approved only when its need and quality are established.

In the period 2008-2011, fifteen new graduate degree proposals were approved for UC Davis, three programs were discontinued, and changes requiring CCGA review were made to four programs. One proposed degree was recently approved (M.S. in Pharmaceutical Chemistry), one is pending (M.S. in Environmental Policy and Management), and one was recently rejected.

Course Approval Process [CFRs 2.1, 2.2, 3.8, 3.11, 4.3]

The course approval process provides several review levels to ensure a course's quality and rigor, compliance with university standards, and the significance of its contribution to learning at UC Davis. Course changes must adhere to clear standards set by the Academic Senate governing the creation, discontinuation, and significant changes to courses (including prerequisites, mode of grading, or changes that affect its GE status). Tracking the progression of course approval is managed by the [Integrated Curriculum Management System](#) (ICMS).

At each level of review, the proposal may be approved and forwarded to the next level, or relegated to the previous level for revision or clarification (see [Ex. 29](#)). The process is initiated by faculty by submitting a request to the department or program chair, who may then relegate or forward the proposal to the appropriate [college's courses committee](#). Graduate level courses are reviewed by the campus [Graduate Council Courses Subcommittee](#) (GCCS). The final review level is the Senate Committee on Courses of Instruction (COCI), which reviews all campus course proposals according to strict [criteria](#) upholding the level and emphasis of courses, as well as their scope and organization, limiting proliferation and overlap between departments. COCI criteria also govern course credit, based on the "Carnegie rule" which specifies one unit of credit for three hours of work by the student per week. Courses approved by the COCI are forwarded to the Registrar's Office for integration into the campus catalog. By [Standing Order of the Regents](#) professional schools that offer work at the graduate level only retain their own authority over course-approvals and grading policies, but are otherwise subject to the same Senate oversight as any other graduate program.

The campus course approval process is currently under review. An Academic Senate Special Committee examined the process providing recommendations for enhancing and streamlining the overall process to reduce workload and overall timeliness of review. The Academic Senate Office has identified additional temporary resources to provide short-term assistance to faculty and departments proposing courses. Additionally, the colleges and Courses Committee are currently reviewing a proposed workflow to streamline the process. Campus progress toward streamlining this process is dependent upon both faculty endorsement of the revised review process as well as on the ability of

the campus to identify the resources necessary to support a revised process.

Teaching and Learning

Faculty and Instructor Training [CFRs 3.3, 3.4]

- New Faculty Orientation: Each fall, new faculty attend a day-long New Faculty Workshop on campus-specific issues and policies such as shared governance, the [Faculty Code of Conduct](#), [Principles of Community](#), family-friendly policies, dossier evaluation and advancements to tenure, as well as best practices and campus resources for effective teaching. There, faculty are introduced to the [Center for Excellence in Teaching and Learning](#) (CETL), [Academic Technology Services](#) (ATS), and the [University Writing Program](#) (UWP).
- TA Training: CETL helps graduate students improve their teaching skills through the mandatory campuswide [TA Orientation for New Teaching Assistants](#), regular offerings of the introductory [Seminar on College Teaching I](#), the advanced [Seminar on College Teaching II](#), the [Graduate Teaching Community](#), and peer mentoring and peer-led workshops offered by fellows in the [TA Consultant Program](#). Some departments and programs that hire TAs also have an internal, discipline-specific orientation for graduate student instructors and assistants. Finally, TAs are provided with additional guidance in the TA Handbook published by Graduate Studies.
- Assessment of Instruction: Instructors at UC Davis engage in a continuous process of improvement in teaching and learning through formative and summative assessment processes. Every undergraduate and graduate course at UC Davis is evaluated by students every quarter (with the exception of special courses such as independent studies and internships which typically have a 1:1 faculty-student ratio). Evaluations provide information to instructors and departments about students' perceptions of the quality of instruction, the quality of the course content, opportunities for students to participate in class, and other factors related to quality of the educational experience.
- Peer Evaluations: The outcomes of the student and peer (faculty) evaluations are used during ladder-rank faculty and adjunct instructor performance reviews. Faculty who are eligible for promotion (from assistant to associate and from associate to full professor) are evaluated by a senior faculty member in the department, via an in-person observation of teaching. The evaluator writes a separate letter which is used by department chairs in formulating their recommendations for promotion. They are evaluated along with research and service components of the candidates' records by departments, the deans' offices and the campus Committee on Academic Personnel (CAP) as they are developing recommendations for higher administration with respect to tenure and promotion.

Instructional Improvement [CFRs 2.6, 2.8, 2.9, 3.4, 4.4, 4.6, 4.7, 4.8]

Center for Excellence in Teaching and Learning (CETL)

CETL's [programs](#) enable faculty and other instructors to engage in inquiry into the conditions and

practices that promote student-centered teaching for all levels of instruction. CETL staff facilitate inquiry-based instructional improvement efforts, assessment of teaching and learning, and long-term collaboration among campus instructors with shared interests and varied expertise. Other CETL goals include enriching campus resources for teaching and learning, and promoting effective teaching and assessment strategies in concert with the Office of Academic Assessment.

- Formative assessment for instructors at all levels: CETL faculty developers offer [mid-quarter interviews](#), [videotaping](#), and [consultations](#) to faculty for the improvement of teaching; 40 faculty teaching consultations were conducted in 2011-12 ([Ex. 30](#)). The [TA Consultants program](#) enables UC Davis graduate students with significant teaching / TA experience to serve as peer consultants under the supervision of the CETL staff. This program provided 146 consultations during 2011-12, including 70 mid-quarter interviews, 51 videotaping sessions, 15 teaching philosophy consultations, and 9 miscellaneous consultations.
- Workshops: In Winter 2012, TA Consultants offered a certificated workshop series entitled “Teaching Your Own Course: From the Basic to the Advanced,” with topics including designing effective syllabi, and creating activities that promote critical thinking. Their Winter 2013 workshop series, [Powerful Pedagogy: Using Research-Supported Methods to Teach Effectively](#), covered topics including meaningful assessment and teaching technologies. At UC Davis exceptional graduate students are allowed to be instructors of lower-division undergraduate courses.
- Instructional Improvement Grants: CETL administers the [Undergraduate Instructional Improvement \(UIIP\) Grants](#) which supports instructors who develop and implement new course content and methods of instruction. These funds are part of CETL’s core budget. Proposals that address strategic campus needs are given special consideration in the UIIP review process. In recent years, grants developing student learning outcomes and assessment strategies for undergraduate majors and large-enrollment undergraduate classes have been emphasized. As an example, with UIIP support, the Acting curriculum (leading to the AB in [Dramatic Arts](#) with Theatre Emphasis) has been overhauled specifically to improve the alignment between courses based on student learning objectives. (See [Ex. 31](#) for Selected UIIP Impact Reports.)
- CETL staff provides curriculum development support for hybrid and blended courses. The center’s deep involvement with the campus’s and UC system’s online instruction course development is discussed in greater depth in Essay 4 on institutional capacity and sustainability. The CETL also administers the new [Provost Hybrid Course Award](#), now in its second year. These awards, funded by the Office of the provost, support the development of hybrid courses through both financial and consultative support.

College and Departmental Efforts [CFRs 4.1, 4.3, 4.4, 4.6, 4.7, 4.8]

In addition to institutional-level quality assurances such as program review, programs and colleges give regular attention to the effectiveness of curriculum and implement various efforts to improve structures, processes, curricula, and pedagogy, and to evaluate those efforts. Attention is also given to new ways to achieve the Educational Objectives and the new GE literacies. The examples below in

Biological Sciences, Physics and Chemistry illustrate this practice.

Biological Sciences Curriculum Assessment

One example is the College of Biological Sciences' assessment of lower-division and upper division curriculum in Biological Sciences (BIS). Assessment of the introductory BIS 2 series resulted in a number of changes, including an innovative collaboration across disciplines and colleges. Recognizing a language comprehension weakness in their students, biology and classics faculty worked together to create a classics course for STEM students that would meet general education requirements and target this specific learning challenge. Among other changes, the BIS program assessment resulted in concerted efforts to enforce prerequisites, use online quizzes, and enhance laboratory preparation in introductory level courses to increase student success.

Physics Department Assessment

The Physics department has applied creative adaptation of courses for the continuous improvement of student learning, and has actively engaged the new GE requirements by adding courses to address the new literacies.

- Physics 7 series: Established in 1995, the Physics 7 series of introductory physics courses rapidly became the standard introduction to physics for bioscience (and many agriculture) majors, and now serves over 1,700 students per year. A central feature of this strongly [student-centered class](#) is sense-making by the students during organized discussion/labs in which the students take part in peer-peer discussions, argumentation, and presentations of ideas. While the purpose and the structure of the course has been consistent throughout its existence, all aspects of the class – including the topics covered, the organization of those topics, the instructional delivery, and the exam questions and their grading – have evolved through constant feedback and assessment. A paper published on the course, [Sixteen years of Collaborative Learning through Active Sense-making in Physics \(CLASP\) at UC Davis](#), details the course's evolution and assessment using pre- and post-tests; differences in outcomes (MCAT scores and upper division GPAs) and survey results indicate the success of this wide-reaching course.
- Physics 9: There have been two experiments to evaluate the effectiveness of alternative approaches to teaching PHY 9; one of those [studies](#) is under review by the *American Journal of Physics*.
- [Physics 12](#): improvements represent GE assessment as well as program assessment. Visualization in Science is a completely new GE visual literacy course teaching the production, interpretation, and use of images in physics, astronomy, biology, and chemistry as scientific evidence and for communication of research results. This lecture course is limited to a class size of 20-50 students. The upper division lab courses 122 (required of all majors) and 116C have been extensively modified to greatly improve attention to writing and to give them GE writing experience credit. There has been an increase in the number of undergraduate majors involved in research and in writing honors theses. The research experience serves several campus educational objectives. Writing and presentation are a major evaluation factor for the theses.

Chemistry Department

The Chemistry Department is a good example of how some programs implement evidence-driven, outcomes-based assessment of learning. In addition to well-developed [program learning outcomes](#) that include knowledge-based, performance/skills-based, and affective outcomes, each course syllabus must specify learning outcomes. Other related department efforts ([Ex. 33](#)) include:

- A UIIP grant-supported project testing for correlation between specific assessments of student learning and other measures (course final grade, GPA, etc.).
- Checking for evidence of grade inflation. An examination of complete records of grade distributions in all Chemistry courses dating back to 1969 indicate that there is no grade inflation over that period; in fact, grades in some of our freshman and sophomore courses have gone down on average over this period.
- Correlating scores that graduating seniors attain on the standardized American Chemical Society Diagnostic of Undergraduate Chemistry Knowledge (DUCK) exam with their overall and in-the-major GPAs. Current data, though limited to one year and 13 students, suggests a plausible correlation to motivate an expanded study.
- The chemistry curriculum is reviewed on an ongoing basis and revised as needed. Most recently, the CHE 2C course was reconfigured to meet increased enrollment demand for the CHE 2 series, without adversely affecting the content or delivery thereof. The changes were approved by the entire Chemistry faculty, without opposition.
- A new requirement in the criteria for certification by the American Chemical Society of the Chemistry BS major triggered a new biochemistry course that is being readied for approval by COCI.

University Writing Program (UWP) [CFRs 2.1, 2.13, 2.6, 2.7, 3.2, 4.1, 4.6, 4.7]

The University Writing Program illustrates faculty involvement with undergraduate student learning across disciplines; seriousness about implementation of the educational objectives; and application of the principle of continuous improvement. Established as an independent unit in 2003-04, the UWP provides writing instruction to undergraduates, provides graduate student training in the teaching of writing, and works with faculty to integrate writing more effectively into courses across the curriculum. The program's history and rationale were described extensively in our 2008 Interim Report.

UWP faculty run the [Writing Across the Curriculum](#) (WAC) program, which helps faculty and graduate students across campus integrate writing activities into their courses and implement the new GE writing experience requirement. WAC offers consultations for formative assessment for teachers, and [workshops](#) presenting student-centered methods for the continuous improvement of the teaching of writing throughout the university.

In 2008, the Graduate Council approved an interdisciplinary [designated emphasis](#) at the PhD level in Writing, Rhetoric, and Composition Studies, administered by the UWP. A year later, the Graduate Council officially recommended that the mission of the UWP be expanded to include writing

instruction for students in the graduate and professional schools. This expansion has been included in the new graduate student professional development program, [GradPathways](#). A key aspect of the support for graduate writing is the peer Graduate Writing Fellows program.

In Fall 2009, the Professional Writing Minor was established, permitting undergraduates from all majors to study writing intensively and receive documentation on their transcripts. The minor requires 20 units of upper division work, including 4 units of writing internship in which minors develop their writing in real world contexts ranging from journalism, grant-writing, and public relations to writing technical manuals and scientific lab reports. As of 2012, there are 175 minors. Since 2009, 117 students from all four undergraduate colleges have graduated with minors in writing.

In 2011-12, UWP began exploring the possibility of proposing a Professional Writing major. After researching programs and curricula from universities nationwide, that proposal is being formalized and will move from the program to the college and Academic Senate.

The number of UWP ladder faculty has increased from two in 2005-06 to five in 2012-13, adding specialists in second language writing, technical communication, and the rhetoric of science.

Student Standards for Achievement [CFRs 1.2, 1.7, 2.1, 2.2, 2.10]

Throughout this essay, we have indicated that the course of study for undergraduate students reflects an integrated approach intended to cultivate educated graduates. At the graduate and professional levels, programs prepare students for a broad range of careers in academic, industry, government, and other organizations by providing both breadth and depth of study in the various disciplines. Faculty support the university mission and vision through excellent teaching in high-quality programs and curricula, ensured by systems of review, assessment, and feedback.

Students are held accountable for fulfilling their educational responsibilities in a number of ways.

- [Graduation Requirements](#): Undergraduates are held accountable to the [Degree Requirements](#) and college requirements ([College of Agricultural and Environmental Sciences](#); [College of Biological Sciences](#); [College of Engineering](#); [College of Letters and Science](#)) and cannot graduate without successfully completing a rigorous program of coursework. Graduate and professional students are held to the approved degree requirements for their individual programs. The capstone experience is particularly critical to the successful completion of graduate academic degrees. Normally, the capstone consists of a dissertation (PhD or EdD), a professional performance or exhibit (MFA), a thesis or comprehensive examination (MA and MS), or a project report (professional master's degrees). These capstones provide a critical opportunity for a faculty committee to assess the individual abilities and accomplishments of each student.
- [Grades](#): Most courses are letter graded; Pass/Fail (undergraduate) or Satisfactory / Unsatisfactory (graduate) options are limited both by curriculum policies and by the college or Graduate Council requirements. Scholastic deficiencies for undergraduates, either qualitative (grades) or quantitative (minimum progress) result in [Probation and Dismissal](#). At the graduate level, grades are monitored by Graduate Studies quarterly and poor academic performance may result in a warning, Academic Probation (for a given term or overall), or Disqualification.

Students must be in good academic standing to take oral examinations and advance to candidacy for a degree. Per Academic Senate [Grade Change Guidelines](#), students may petition the Grade Change Committee, which will review all petitions on a case-by-case basis to determine appropriate action. Student Judicial Affairs publishes guidelines for student [grade grievances](#). There is no university requirement for class participation; rather, they vary by course, and may or may not impact grades.

- [Academic Integrity](#): At UC Davis, students, faculty, and Student Judicial Affairs (SJA) share responsibility for maintaining academic integrity under our [Code of Academic Conduct](#), which requires students to act fairly and honestly. The [Campus Judicial Board](#) (CJB) is a body of twelve students appointed annually by the Vice Chancellor for Student Affairs to hear cases of suspected student misconduct and to initiate outreach and education projects to the campus community. In addition to campus policies, a systemwide [Policy on Student Conduct and Discipline](#) lists grounds for dismissal from any UC. Graduate students engaged in research may also be subject to review under [research misconduct policies](#) if they violate the standards and principles of scholarly integrity.

Public data on student achievement are available on the [UC Davis Profile](#), [UC Davis Facts](#), the systemwide [2012 Accountability Report: Undergraduate Student Success, Student Activities and Educational Outcomes](#); [2012 Accountability Report: Graduate Academic and Professional Degree Students](#), and in [Graduate Studies Data Reports](#). The Undergraduate Retention, Graduation, and Time-to-Degree Narrative ([Ex. 36](#)) submitted to WASC in August 2012 gives current and comparative data, and describes our new goals for undergraduate students: to achieve 6-year graduation rates of over 90% for all students (a 9% increase from 81%) and 80% for URM students (a 7% increase from 73%), and a first-year retention overall rate of over 95% (a 3% increase from 92%). The Graduate Retention, Graduation, and Time-to-Degree Narrative ([Ex. 37](#)) submitted to WASC in September 2012 gives current and comparative data. Most of the metrics compare quite favorably with UC and non-UC comparison institutions. Nevertheless, we are concerned that overall PhD completion rates of 66% are too low and have begun discussions in Graduate Council about desired goals (as well as goals for the related metric of 3-year advancement to candidacy rates).

The above sections have covered the requirements, learning outcomes, and extensive processes and procedures that assure the meaning, quality and rigor of the UC Davis degree. Campus efforts to ensure and improve student success are described in the essay that follows.

Essay 3: Defining and Promoting Student Success

Through transformative and diverse opportunities for learning, UC Davis will inspire and prepare its students...to lead and excel in solving the dynamic challenges of tomorrow's world. In advancing this goal, we will...foster the academic success of all students by providing a network of student services that support health and welfare, enable civic engagement and leadership development, and foster a safe and hospitable learning environment.

[UC Davis: A Vision of Excellence](#)

Defining Student Success [CFRs 1.2, 1.7, 2.1, 2.2]

At UC Davis, we define student success qualitatively in terms of our aspirations for students. The campus [mission](#), [vision](#), and educational objectives ([graduate](#) and [undergraduate](#)) discussed in Essay 1 underlie our goals for the student experience as a whole, in addition to defining the academic meaning of the degree. Along with the traditional classroom-based competencies, as expressed in our [GE requirements](#), we want our undergraduates to graduate with leadership skills, global perspective, cultivated virtues, and preparation for lifelong learning. We want our graduate students to be ethical citizens and scholars; independent, innovative researchers; leaders in the creation of new knowledge and creators in visual and performing arts; ensure excellent communicators, teachers and mentors; and achievers who are successful in collaborative and cooperative ventures. Our students should graduate with an appreciation for research, teaching, and service. We invest in this model of success through excellence in classrooms and laboratories, as well as the array of opportunities we offer for enhanced studies, cocurricular activities, community building, and student support, including financial assistance.

In quantitative terms, student success is defined in terms of graduation and retention rates and time-to-degree, which we have discussed in the undergraduate and graduate reports previously submitted to WASC in 2012, and revisited here.

Student Success [CFRs 1.5, 2.10, 2.11, 2.14]

As a University of California institution, we support the goals of the system's [California Master Plan for Higher Education](#), and strive to educate as many qualified California students as we can within the constraints of our budget and our [UC Davis: A Vision of Excellence](#). Approximately 73% of undergraduates and 94% of graduate and professional students receive some form of support (see [Ex. 2.4](#)). This represents a 5% increase among undergraduates, and a 3% increase among graduate/professional students receiving aid compared to just two years ago. University of California institutions accept first-year students from among the top 12% of California residents; non-residents are held to a standard of favorable comparison. The systemwide goals also include providing access for junior-level transfer students from California's Community Colleges.

As a further commitment to the people of California, the [University of California Diversity Statement](#) acknowledges the acute need to remove barriers to the recruitment and retention of

underrepresented minority (URM) student populations; the percentage of URM admissions (see [Figure 2](#)) has risen steadily in recent years. Our recently adopted holistic review process for undergraduate applications defines merit using [multiple measures](#) of accomplishment and promise, and considers the personal and school context in which the applicants demonstrated achievement.

Student success begins with the admission of qualified students. In recent years, UC Davis has attempted to provide greater access to increasing numbers of diverse students, while maintaining quality. [Admissions Requirements](#) for all degree levels are indicated in the catalog; most applicants admitted to UC Davis well exceed the UC admission requirements. Selectivity for freshmen admissions has improved, with the campus admitting 46% of applicants for Fall 2012, down from 58% in 2007. For a detailed undergraduate and graduate student profile, see the [UC Davis Admissions Profile](#). Other dimensions of our student enrollment can be viewed on the [UC Davis Profile](#). Student success for graduate students begins with demanding requirements for entry (see [Figure 4](#)). Selectivity in graduate admissions has increased, with the campus admitting 26% of applicants for Fall 2012, down from 34% in 2007. Over the same period, as depicted in Figure 4, we have experienced an upward trend in our graduate matriculation rate, with 46% of newly admitted students enrolling in Fall 2012, up from 40% in 2007. [Figure 3](#) shows the increase in representation of students from historically underrepresented racial and ethnic groups which has nearly doubled from 9% in Fall 2001 to 15% in Fall 2012.

Campus Partnerships for Student Success [CFRs 2.4, 2.11, 3.8, 3.11, 4.5]

Campus administrative offices work in partnership with the [Academic Senate](#), units and departments, and student leadership groups across the campus to provide programs to enhance student success.

The Academic Senate has responsibility for establishing and maintaining academic policies; their authority, duties, powers and privilege are outlined in the [Standing Orders of the Regents, 105.2](#). Specific Academic Senate committees are charged with defining and maintaining student educational success (for detailed information on Academic Senate committees see their individual [committee pages](#)). The Courses of Instruction and International Education committees have final authority over undergraduate and graduate education. At the undergraduate level, overarching responsibility resides with the UGC and its subcommittees of GE, Preparatory Education, Undergraduate Instruction & Program Review, and Special Academic Programs. Other committees of the Academic Senate at the undergraduate level include 1) Admissions and Enrollment and 2) Undergraduate Scholarships and Honors & Prizes. At the graduate level, overarching responsibility resides with Graduate Council (GC) and its subcommittees of GC Courses, GC Educational Policy, GC Program Review and Graduate Student and Postdoctoral Scholar Welfare.

Administrative units have responsibility for creating and monitoring programs that improve students' experience and measuring and reporting on student success. The Offices of [Undergraduate Education](#), [Graduate Studies](#), and [Student Affairs](#) work both independently and collaboratively to provide a rich array of student success initiatives. Since our last WASC review, these administrative units have undertaken several initiatives to improve student success, as described below. The [Division of Student Affairs](#) is dedicated to advancing the University's mission by providing programs, services and facilities to foster academic success, student development, and campus community. Student Affairs

includes Enrollment, Wellness, [Student Housing](#), [Campus Recreation](#), Student Life, Campus Community, and Retention services (see the division's [Organizational Chart](#)).

In collaboration with [Budget and Institutional Analysis](#), Student Affairs regularly surveys the effectiveness of its programs, services and facilities, and the “student experience.” [Student Research & Information](#) reports provide data and analysis on student success. A campus Blue Ribbon Committee has been formed to assess the undergraduate student experience and provide Student Affairs with opportunities and solutions to improve the undergraduate student experience. The results of this committee’s assessment will be available at the time of the WASC site visit in 2014.

Student Success I: Measuring Graduation, Retention, and Time-to-Degree

Undergraduate Graduation, Retention, and Time-to-Degree [CFRs 1.8, 1.9, 2.6, 2.9, 2.10, 2.13, 4.5]

The Retention, Graduation, and Time-to-Degree report submitted to WASC in August 2012 presents and discusses data for UC Davis undergraduate students (see [Ex. 36](#)). Current and historical data for [freshman](#) and [transfer](#) retention are also posted in the [UC Davis Profile](#). Our 6-year graduation rate (both overall and URM) and time-to-degree compare favorably with peer institutions: a Peer Institution Comparison Report based on 2010 data from [The Education Trust](#) ranks us third among 16. A comparison of graduation rates for transfer students across the UC campuses is available from the UC 2012 Accountability Report, [Indicator 4.2](#). In the most recent data, for the 2008 entering cohort, the 54% figure for four-year graduation for UC Davis is below the 61.5% average for the UC system. While complete data for subsequent cohorts is not yet available, our 4-year graduation rates have gradually improved, moving from 51% for the 2004 freshman cohort to 54% for the 2008 cohort. The chancellor and Provost are focusing on and initiating systematic efforts to improve time-to-degree and graduate rates for both freshman and transfer students.

We are continually seeking to improve our retention and graduation rates. In the [2008 Student Transition and Retention \(STAR\) report](#), consistent with national reporting standards, the campus set goals to attain a 6-year graduation rate of 80% for all students, a 70% rate for URM students, and a first-year retention rate of 90% for all students. We have surpassed these goals. Our current aspirations are to achieve 6-year graduation rates of over 90% for all students (a 9% increase) and 80% for URM students (a 7% increase), and a first-year retention overall rate of over 95% (a 3% increase). For some students, particularly those in majors with a relatively high number of required courses and prerequisites, time-to-degree may be improved by current campus efforts to increase course availability; we discuss these capital improvements more fully in Essay 4.

UC Davis has implemented practices nationally recognized for impacting retention such as those recommended by the [ACT retention studies](#): mandated [writing, math and chemistry course placement tests](#), small-enrollment [First Year Seminars](#), some with an “Introduction to the University” component, and a comprehensive learning assistance center, the [Student Academic Success Center \(SASC\)](#), which offers a variety of programs including [tutoring](#) and advising interventions with selected student populations. For example, UC Davis is the only California university in the top 25 that is [rated "stellar" by U.S. News & World Report](#) for “writing in the disciplines.” For undergraduate

students, we expect what stands out most to the raters in regard to UC Davis are (1) the upper level "writing in disciplines" and "writing in professions" courses in the University Writing Program (UWP), a relatively rare configuration nationally, and (2) the number of courses (about 1500) that meet the criteria for GE "writing experience."

Graduate Retention, Graduation, and Time-to-Degree [CFRs 1.5, 1.8, 1.9, 2.6, 2.10, 2.13, 4.5]

The Retention, Graduation, and Time-to-Degree Report offers data for UC Davis graduate and professional students ([Ex. 37](#)). This report, together with the 2012 [Report of the Joint Administration/Academic Senate Task Force on Graduate Education: Prioritizing and Strengthening Graduate Education at UC Davis](#) ([Ex. 45](#)), analyzes quantitative data on student success.

As is typical in graduate education, the time-to-degree varies significantly across graduate programs. At UC Davis those who finish the PhD do so within a median time between 5 and 6 years across the various cohorts and subgroups reported in the WASC data templates, with an overall average of 5.7 years. These numbers reflect the distribution of PhD students across disciplines with different normative times to degree, and the necessity of balancing the time needed to develop a dissertation of sufficient originality and quality with the availability of resources to support the doctoral study of each individual. As noted in [Exhibit 37](#), the UC Davis PhD time-to-degree data compare favorably with data from peer institutions, both within the University of California and nationally.

Similarly, the aggregate UC Davis PhD completion rate is 66% overall, comparable to national figures as shown in [Exhibit 37](#) and reported by the Council of Graduate Schools' [PhD Completion Project](#). However, national figures serve as a benchmark, not a goal. UC Davis has undertaken efforts to understand and improve our completion rates. The graduate program review process has revealed that faculty tend not to be aware of completion rate data for their own programs. Hence a first step in improving completion rates is simply to raise awareness and discuss the reasons for attrition. For that reason, Graduate Council now regularly provides completion rate data in its program review process. Completion and time-to-degree data will be provided annually to all programs beginning in Fall 2013.

The corresponding data for academic master's degrees similarly show acceptable outcomes ([Ex. 37](#)), although there are no nationally available data with which to make comparisons. The overall master's completion rate of 80% is within an acceptable range. The median time-to-degree values of 1.5-2.2 years for the various master's degrees compare favorably with the expected 1.7 years based on two academic years and one summer. We look forward to comparing our outcomes with other institutions if more national data become available in future years.

Students enter graduate programs with unique individual and academic backgrounds and therefore progress at differing rates toward meeting the requirements for the degree. For PhD programs in particular, there is intensive student-specific mentoring by faculty members, which is discussed in greater detail in the advising section below.

Each program is required by Graduate Council to adopt mentoring guidelines that are shared regularly with the faculty. Programs may adopt the standard [Graduate Council Mentoring Guidelines](#)

or develop their own. The individualized nature of the PhD program and success of each student in attaining his or her personal goals is more important than the time line for graduation, although timely completion is valued and articulated through the [Time-to-degree Policy](#). To assure that students are making timely progress toward their degrees within the individualized context of graduate education, the UC Davis Office of Graduate Studies requires every graduate program to provide an annual progress evaluation of each student. Progress toward degree for the past year and objectives for the coming year are noted. In addition, each student is rated as making “satisfactory,” “marginal,” or “unsatisfactory” progress. These annual reviews provide an important opportunity for the student, the faculty mentor and the program through its Graduate Adviser to reflect on the past and plan for the future (with corrective actions clearly delineated if progress is unsatisfactory). Our plans to provide an online system for annual reviews and to rename them *annual advising reviews*, will facilitate the ability of Graduate Studies to monitor academic progress of all students.

Consistent with national data reported in the Council for Graduate Studies PhD Completion Project, underrepresented minorities complete their PhDs at noticeably lower rates than white or Asian students. This trend reflects the very real challenge of being underrepresented. Although we must operate within the restrictions of California Proposition 209, we continue to devote time and attention to the special challenges of retaining underrepresented minorities through outreach and community-building efforts. For this purpose, Graduate Studies has funded a series of community Graduate Students Researchers (GSRs) in the Cross Cultural Center, the Lesbian, Gay, Bisexual and Transgender Research Center and the Women’s Resources and Research Center. These GSRs, along with the Graduate Student Assistant to the Dean and Chancellor have become the nucleus of the [Graduate Ally Coalition](#) (a student-centered campuswide group to support the success of graduate students). Graduate Studies also actively supports the Black Graduate and Professional Student Association and the Latino Graduate Student Association. A chronological sketch of campus efforts to support graduate students and evidence of results can be found on [the graduate news website](#).

Student Success II: Qualitative Experience

Aligning Student Success with the Educational Objectives [CFRs 4.4, 4.7, 4.8]

In 2010, students were asked to rate the preparation they received as UC Davis undergraduates on seventeen educational objectives designed to mirror the campus Educational Objectives adopted by the Academic Senate ([Ex. 38](#)). Their responses were grouped into three broad areas: Academic, Cultural Learning, and Leadership Skills (p. 6). The results show a strong and significant increase in reported levels of preparation in the Educational Objectives as the level of involvement in student activities increased and substantiate the conclusion, “clearly, involvement in cocurricular activities is important to attainment of the Educational Objectives and skills deemed important by the Academic Senate” (p.9).

The Undergraduate Experience [CFRs 1.5, 2.12, 2.13, 2.14]

Efforts to promote each student’s success begin at admission. Students are asked to complete an online interest survey to facilitate outreach from groups aligned to their interests, and to attend an informative [Decision Day](#). Most incoming students (98% of freshmen and 88% of entering transfers in

2012) attend a 2 ½ day (freshmen), or one day (transfer) [Orientation](#) at which they meet with advisers and are guided through their first course registration. Informational sessions cover financial aid, student health and counseling services, and campus safety. [Campus Recreation and Unions](#) provide student life activities. Students receive a comprehensive New Student Handbook. Finally, the school year kicks off with Fall Welcome for all students. The UC Davis community plans events throughout "Fall Welcome" that revolve around UC Davis traditions and introduce students to campus departments and services.

Special orientation services are offered to [Educational Opportunity Program](#) (EOP) students. The [Special Transitional Enrichment Program](#) (STEP) begins with a four-week comprehensive, residential summer program that includes a week-long orientation and three weeks of classes (writing, mathematics, study skills, problem solving and optional chemistry, or physics) as well as acclimatization to residential college life. For international and out-of-state students, orientation is provided in two phases: remote academic advising via phone or internet prior to initial registration; and in-person orientation on campus before instruction begins.

Advising [CFRs 2.11, 2.12, 2.13]

UC Davis has a decentralized advising system, with various types of advising serving different student needs, occurring at the college, major, and campus levels.

College Advising

The four colleges have professional staff advisers who ensure students are making appropriate progress toward graduation. (This type of advising is distinguished from counselors who provide students with non-academic assistance.) Academic advising encompasses advice on choosing or changing a major; minimum progress and degree checks; satisfaction of GE requirements, college-specific and university-wide graduation requirements; academic probation/dismissal and readmission, and action on petitions. A peer advising (students) system complements staff advising by providing basic information, and referrals to the staff advisers. The closer look at the scope of multi-tiered advising at the college level is exemplified by the College of Engineering's model for advising and career guidance ([Ex. 39](#)).

Colleges have future plans to further strengthen academic advising. A 2011 allocation of \$500K from the provost to provide additional advising staffing support in each of the four colleges has expanded the capacity of each college. Last year, the College of Agricultural and Environmental Sciences (CAES) used the allocation from the provost to expand their front desk "triage" and drop-in advising with an additional academic adviser and launched a pilot to determine if a centralized pool of trained peer advisers would be useful to expand academic advising, standardize services, and increase the quality of peer advising. The peer advising model was developed through collaboration between academic advisers in the Dean's Office, faculty master advisers, and departmental staff advisers to select peer advisers, who then participated in a course offered by Student Housing Services. CAES recently surveyed the majors participating in the pilot and found a high level of satisfaction. Consequently, CAES will expand the pilot to include more majors in the next academic year. The College of Biological Science's (CBS) has a 2013 plan for a Biology Academic Success Center, a

college-level advising center that will be student-centered, provide a single gateway to all services, contain functional online services, and provide individual guidance upon request ([Ex. 41](#)). The plan will unite dean's office advisers with academic advisers from five departments (supporting 9 majors) into a single site.

One of the most promising of such efforts is the development of the "Student Advising Portal," an online tool that enables advisers to efficiently provide students with accurate information. The Advising Portal is linked to the Banner system so the adviser can generate a new, up to date, transcript with the push of a button. Version 1 of the Student Advising Portal was developed by the L&S Technical Team and was rolled out to two other colleges (CBS and CAES) over the last year and half, enabling a more efficient approach to advising functions such as course planning and dealing with academic difficulties. Version 2 of the Portal is in development and is intended to provide both additional tools to advisers, and direct access for students so they may access their own information and use the system's self-evaluation tool to examine their own degree progress. Our counselors and advisers spend a lot of time doing routine processes that could easily be handled by an electronic system. Ideally, the Portal will allow staff to spend more time dealing with the human part of advising and spend less time on the mechanical part of advising. We believe that improved advising can result in a better time-to-degree and earlier identification of students in academic distress.

Departments Advising:

Academic major departments often include both staff advisers and faculty advisers; however, levels of staff support vary and some departments have no staff adviser while others are limited to part-time staff advising support. More than 70% of the departments also utilize peer advisers. Staff advisers work closely with the peer advisers, and in conjunction with faculty advisers, assume responsibility for advising on program planning, university regulations, and major and/or college requirements. Faculty advisers guide students in making decisions leading to successful studies and possible future careers. The value of the relationship between staff and faculty advisers is exemplified by a 2011 external review of the Physics Department's success in preparing undergraduates for STEM careers. Reviewers praised academic advising services for students, noting the staff adviser position as "really that of an ombudsman problem solver for students" (see [AIP Career Pathways Site Visit Report](#), p.7).

Campus Advising

Units within [Undergraduate Education](#) provide advising related to undergraduate research, honors programs, leadership and professional development (including opportunities in Washington D.C.); [University Outreach and International Programs](#) oversees advising related to participation in study abroad. Within [Student Affairs](#), advising is offered by several units to address new student orientation and academic advising for first-year and transfer students (elaborated upon below); pre-professional/graduate school advising; services for specific populations (transfer, reentry, and veteran students, EOP, international students) and to students in ethnic studies departments; internships, career preparation, and community service-learning opportunities.

In recent years we have made important gains in supporting UC Davis undergraduate students' first-year experience. CAES, in collaboration with the Internship and Career Center offers the [Career](#)

[Discovery Group Program](#), in which undergraduates are in a year-long course sequence in groups of not more than twenty-five, and led by a graduate student mentor. Additionally, through a partnership between Student Housing, the four college Deans' offices, and the Student Academic Success Center, the [Residence Hall Advising Team \(RHAT\)](#) emerged as a unique and successful program for students residing in the residence halls. Not only has RHAT strengthened students' academic and cocurricular introduction to UC Davis, it also has led to an important advance in our ability to serve first-year students, given that 94% of entering freshmen, and approximately 22% of entering transfer students, live within Student Housing.

The RHAT program functions as a year-long academic orientation bringing advising and tutoring resources into the residence halls as a convenient "one-stop shop." Each of the three residential areas has an Academic Advising Center, which is staffed by the peer advisers who have participated in intensive training to ensure appropriate and quality advising. Drop-in academic advising and tutoring (in common first-year courses of math, chemistry and writing) are offered weekdays, throughout the day and evening to support students' success. The RHAT program also includes evening community programs implemented by the Resident Advisers and managed by professional Academic Coordinators from the Residence Life Program. Required programs with topics such as "Grading Options," "Planning Quarterly Course Schedules & Academic Progress (GE requirements)," "Majors, Minors & Careers," "Summer School," and "Second Year Resources" ensure students are offered timely advice pertinent to academic calendar/deadlines.

Navigating Four Years [CFRs 2.2, 2.8, 2.9, 2.12, 2.13]

The optimal UC Davis experience is for students to balance their academics with personal, cultural, and professional development. Our students are able to develop faculty relationships through undergraduate research, internships, and education abroad; make friendships through participation in the arts, sports, student government and other leadership opportunities; find community through residential options, student clubs and organizations; and become fully engaged in campus activities and functions. Our students can achieve these [Educational Objectives](#), within four years using a framework such as the following.

Year 1 – Exploration

UC Davis guarantees the opportunity to live in the [Residence Halls](#) to all first-year students. A June 2012 report indicates that freshmen who live in the residence halls have substantially higher academic performance than non-residence hall freshmen ([Ex. 42](#), pp. 7-8).

Residence Hall life helps freshmen to succeed by offering extensive, coordinated [academic support services and resources](#). Each of the [residence areas](#) incorporates an Academic Advising Center, a computer center, a dining commons, and an area service desk. In addition to advising, students are provided with social and leadership opportunities through the [Residence Hall Programs](#). The [Residential Education Office](#) coordinates evening programs, presented by the peer advisers in each living community that include academic, transitional, leadership, and citizenship. Faculty programs offer students formal and informal contact with faculty in the form of lectures, social events, and meals.

Freshmen are encouraged to explore curricular offerings by taking GE courses early in their academic careers. [First Year Seminars](#) afford the opportunity to interact with faculty and peers in a small classroom setting, studying topics of special interest to the professors. In 2011-12, 210 such seminars were offered, each with a maximum of 19 students enrolled.

By the end of the first year, typically students will have joined a [student organization or club](#), affirmed their interest in the major or formulated plans to change to a new academic interest, and begun to identify curricular enhancements they plan to integrate into their UC Davis experience.

Year 2 – Expansion

This is a year of expanding the student experience beyond the shelter of the Residence Halls and traditional classrooms. Our college-town setting provides many off-campus residential options (Greek organizations, co-ops, apartments, houses) within walking, biking, and local University busing distances. Our students can easily take advantage of campus offerings including those that extend beyond the traditional day, including cultural, leadership, social and arts activities. Attending the [Conference on Undergraduate Research, Scholarship and Creative Activity](#) held each spring is a great starting point for students to observe the kind of undergraduate research that is being carried out across the campus by upper division students, and to consider how they might pursue such opportunities.

Year 3 – Engagement

This is a target year for students to engage in specific curricular enhancement activities, both on and off campus, in ways that advance their attainment of the institutional Educational Objectives. While most of our cocurricular programs do not require upper division standing in order to participate, several of these activities serve as an opportunity for students to fine-tune their interests and support their academic development. For example, the [Washington DC Program](#) and the [Sacramento Center](#) connect students with high-profile internships that interface with their academic and career interests while also being engaged in upper division curricular offerings. Similarly, the [Education Abroad Center](#) offers students unparalleled experiential learning opportunities aimed toward attaining a global understanding of the world while meeting curricular requirements that advance their progress toward graduation. Undergraduate research, internships and service-learning also offer students a hands-on approach to focus and depth in the major with the option of earning elective units, marking progress toward graduation, while also developing a competitive profile for future graduate study and/or employment.

Year 4 – Exceptional

This is a year for students to deepen knowledge in the major, and make the educational experience exceptional. At this point, students have found their niche, and are focused on preparing for the next stage in their academic or professional development. They may engage in capstone experiences toward this objective. At least 77% of our majors offer a capstone option in the form of Senior Thesis, Honors Thesis or Senior Design Project. Additionally, students can elect to conduct an independent research project under the oversight of a sponsoring faculty

member. Those who have been involved in undergraduate research may also present their work at the campus's [Conference on Undergraduate Research, Scholarship and Creative Activity](#), a regional or national conference, or pursue publication in a student or professional journal.

Through prior participation in leadership learning opportunities through the [Contemporary Leadership Minor](#), seminars in the [Student Leadership Development Series](#), or participation in one of 536 student organizations and clubs, students are positioned for a leadership role, such as serving as an officer in [ASUCD](#) or a student organization.

Transfer Students

In support of the [California Master Plan for Higher Education](#), UC Davis allocates significant places for upper-division transfer students. In 2011-12, 37% of our incoming undergraduates arrived as transfer students – the vast majority from California Community Colleges. Davis is [the first UC campus](#) to have a community college on its campus, creating an increased sense of belonging between the institutions.

A “Preparing for UC Davis” [checklist](#) for transfers begins with planning at the high school level, and encourages potential transfer students to visit the campus, join UC Davis social media communities, apply for scholarships, develop a transfer plan, and meet with counselors both at the community college and UC Davis at the appropriate time. Campus administrators collaborate to facilitate articulation of credits.

Dedicated Decision Day and [orientation](#) sessions are offered to promote transfer students' success; all first-year transfer students are guaranteed campus housing to maximize the UC Davis experience. The First-Year Seminars accommodate and encourage transfer students to use this opportunity to interact with faculty in a small classroom environment and develop research skills. Transfer graduation rates, pursuit of postgraduate education and attainment of employment are commensurate with their freshman counterparts.

The Graduate Student Experience [CFRs 2.4, 2.5, 2.12, 2.13]

The graduate student experience at UC Davis begins with a [Week of Orientation and Welcome \(WOW\)](#) held during the week before undergraduate students arrive. Organized by the Graduate Student Assistant to the Dean and Chancellor, this series of events provides an overview of support services available to graduate students (many of which are also described in the online [Graduate Student Guide](#)). The series introduces arriving students to the UC Davis and surrounding Davis communities, and helps build graduate community by providing opportunities for students from all programs to interact. WOW culminates in the Week of Orientation and Welcome Service Activity (WOWSA) in which a group of students engages in some form of service to the local community. WOW is complemented by program-specific orientations that focus mainly on academic matters, such as a special orientation for international students and training for new teaching assistants. The quality of advising and mentoring is evaluated at the program level during the normal program review process. Student input, from end-of-program survey data, is used to set topics for subsequent years.

As graduate students begin their programs, the focus is naturally on coursework. Although MA, MS and PhD degree programs are not designed around a cohort-based educational model, students often enter as a group and may take core courses together in their first few terms. But, each student works closely with her or his major professor and program Graduate Adviser to design a program of study to match specific research and career goals (within approved program degree requirement limits). The nature and timing of the transition from coursework to research varies across programs, with some programs designed to have students complete all coursework and then move into research while others are designed for greater overlap.

Graduate programs operate under a set of degree requirements reviewed and approved through the Educational Policy Committee (EPC) of the Graduate Council. The official requirements must be posted under the [program list](#) on the Graduate Studies website. These degree requirements are regularly updated, and in 2008 the EPC undertook a comprehensive review of all degree requirements and asked many programs to provide an updated version. During program review, Graduate Council uses a new tool ([Student Information System - Decision Support](#)) to check that the required and elective courses offered by a program have been taught as scheduled.

Graduate Advising and Mentoring

Every program also has at least one Graduate Adviser who is responsible for ensuring that students understand the degree requirements and policies of the program and the campus. Graduate Advisers also provide guidance on course selection and help with identifying a Major Professor to guide a student's academic and research training. Graduate Advisers and new Program Chairs receive training each Fall during Graduate Studies' workshops designed for that purpose. They also have ready access to the [Graduate Studies Adviser's Handbook](#) that describes campus policies and procedures.

Each graduate degree program is also supported by one or more staff graduate program coordinators. These coordinators work closely with students and faculty to support the desired program outcomes. Staff coordinators also work closely with the Office of Graduate Studies through the Graduate Studies Advisory Committee, which annually hosts numerous staff professional development workshops. The quality of advising and mentoring is evaluated at the program level during the normal program review process.

Helping graduate students successfully navigate the transition from coursework to research is key to their success; hence it is one of the focus areas in our faculty professional development program, [Mentoring at Critical Transitions \(MCT\)](#). This program was developed under a very competitive national award from the Council of Graduate Schools and the Educational Testing Service. Each year, 3-6 workshops are offered to faculty of all levels of experience to foster campuswide conversations about the impact of mentoring on graduate student success. MCT seminars enhance the preparedness of UC Davis faculty in areas affecting mentoring, academic socialization, and overall success of our diverse graduate student population during the transitions from applicant to student, coursework to research, and research to professional career. Through the MCT program, UC Davis faculty, who are already experts in their respective academic disciplines, gain access to best practices and tools necessary for them to focus on educational milestones, measures of student success, time-to-degree,

building and sustaining inclusive environments, and redefining modes of mentoring and advising that are instrumental to graduate student success.

Every academic doctorate and every master's degree program must result in a capstone or culminating experience. For doctoral students, this is always a dissertation based on original and creative scholarship and evaluated by a committee of three faculty members. Students are guided in their research by their Major Professors, the other committee members and other faculty mentors. Doctoral research formally begins only after the student successfully passes a Qualifying Examination, normally given in an oral format by a committee of five faculty members. Master's students engage in a [capstone requirement](#) in different ways: those writing a thesis must conduct the necessary research; those submitting a project report may or may not conduct original research for the project, but must synthesize reported material in a manner appropriate to the standards of the discipline; and those taking a comprehensive examination demonstrate integrated knowledge of the concepts and skills presented in the curriculum mandated in the degree requirements.

Student Success III: Enhancing Student Success

A number of programs encourage undergraduate students to undertake research, broaden their leadership skills and cultural knowledge, and connect academic learning to real-world concerns. Graduate students, while supported in both of these endeavors, are also instructed in academic integrity and pedagogy and provided professional development. For faculty who work with graduate students, the campus offers instruction on how to improve graduate student research and professional success. UC Davis has programs in place to ensure that the campus climate invites all students to succeed.

Undergraduate Research [CFRs 2.5, 2.8, 2.9, 2.13]

UC Davis selected Undergraduate Research as one of two self-study topics on educational effectiveness for the 2003 WASC reaccreditation process. While the WASC visiting team's [report](#) (see pp. 15-19) recognized the individual and programmatic efforts of faculty to develop and support a culture of undergraduate research, their report emphasized being more intentional about the activities being carried out. The WASC team noted that the plan to establish an undergraduate research center would "...help UC Davis move [undergraduate research] to the next level of institutionalization by providing leadership, coordination, and visibility for what are currently good but disparate educational programs..." (UC Davis Educational Effectiveness Review [Team Report](#)).

The [2008 Interim Action Letter](#) praised the "considerable progress [that] had been made in defining, mapping and integrating research into undergraduates' experiences and that undergraduate research was embedded into the strategic plan for the university." Evidence can be seen in several advancements:

- Its newly established strategic plan established a learning goal that identified "expansion of the quality, number and breadth of research and creative activity" as one of the metrics for achieving that goal.
- To be more inclusive of all disciplines, in 2005 the 16th annual Undergraduate Research

Conference was renamed the [Annual Undergraduate Research, Scholarship and Creative Activities Conference](#), and conference organizers implemented an outreach plan that increased focus on the arts, humanities, and social sciences.

- Alumni data², based on 2012 survey data collected one year after graduating from UC Davis, demonstrates that 64% of our 2010-11 graduating cohort worked on research or creative projects under the direction of faculty, an 8% increase over the 2004-05 graduating cohort; and 51% of the 2012 seniors completed at least one research course during their undergraduate career compared to 32% of the 2008 seniors, a 19% increase.
- The inquiry-based First-Year Seminar series expanded its curricular offerings to include a one-unit seminar entitled Understanding the Research University which focuses on the value of research, and guidance on integrating it into the undergraduate educational experience.
- The Integrated Studies Honors Program, in response to a campus report on high-achieving students, expanded the program from a freshman-only experience to an optional four-year experience culminating in a junior or senior thesis.
- The Washington Program integrated a research seminar as part of its curricular offerings, and added a research symposium for its students on-site in Washington D.C. For many students, the research seminar paper is the most extensive paper they will write as an undergraduate.
- The Internship and Career Center consistently facilitates the highest total number of internship placements among UC campuses, and in 2011-12, among the total were 1,336 internships involving research.
- As part of its academic integration project, the Education Abroad Center offered UC Davis students the option of incorporating research undertaken abroad into major and minor degree requirements.

Undergraduate Research Center

By Fall 2008, in alliance with its campus partners, the [Undergraduate Research Center](#) (URCenter) was launched with an established mission informed by the campus strategic plan and guided by a faculty advisory board. The URCenter serves as a one-stop referral and advising center for all UC Davis students interested in becoming engaged in undergraduate research; acts as a liaison across several other undergraduate research programs that exist outside the Center; and provides a coordinating/leadership role across collaborative events and activities involving multiple campus programs.

With the implementation of an aggressive outreach campaign in its initial year, and a continuously strategic outreach plan in its subsequent years, the URCenter raises the visibility of undergraduate research at UC Davis as most notably evidenced by the increased participation in the annual Undergraduate Research, Scholarship and Creative Activities Conference. A total of 427 students presented their projects at the 2012 23rd annual conference, an overall 100% increase compared to

² Data collected by UC Davis office of Budget and Institutional Analysis. Report pending.

210 presenters in 2008, prior to the establishment of the URCenter, with the greatest increase (134%) among the students in humanities, arts and social sciences; conference attendees for 2012 was estimated at 1500 (poster sessions), 155 (arts exhibit), 400 (oral sessions). The URCenter aligned its [learning outcomes](#) with the undergraduate objectives to frame what students could expect by engaging in undergraduate research. In 2012, efforts to measure learning outcomes were initiated at the annual conference, and results of the past two years' assessment will be available at the time of the 2014 WASC site visit (see [Ex. 44](#)).

Several undergraduate research programs are now centrally located at the URCenter including [CAMP](#), a federally funded undergraduate research program; the annual [UC Davis Undergraduate Research, Scholarship and Creative Activities Conference](#); [Explorations](#), the undergraduate research journal; and the [Provost's Undergraduate Fellowship](#), a grant-supported research proposal competition.

January 2012 marked the transition of the URCenter to its permanent location in the new [Student Community Center](#) building – a highly visible, student-centered location. The new space has afforded the opportunity to co-locate several undergraduate research programs together resulting in more synergy and collaboration across shared programming and multiple reporting lines.

Undergraduate Sponsored Research [CFRs 1.5, 2.5, 2.8, 2.9, 2.13]

The [NSF Research Experiences for Undergraduates](#) (REU) program supports active research participation by undergraduate students in any of the areas of research funded by the National Science Foundation. REU involves students working with faculty in meaningful ways, either on their funded research through a supplemental REU grant, or in research projects specifically designed as an REU program. Current large grant REU programs are offered in various campus departments including [Physics](#), [Chemistry](#), [Biological and Agricultural Engineering](#).

One REU example is, NSF Research Experiences for Undergraduates in Collaborative Research and Education in Agricultural Technologies and Engineering (CREATE-REU) summer internship program offered from 2009-2012. The program emphasis is on integrated training and research experience in plant sciences, molecular biology and engineering, to prepare the agricultural biotechnology research and educational leaders of the future who will help solve society's most pressing problems related to affordable vaccines and therapeutics, energy sustainability and environmental stewardship. The CREATE-REU program aimed to engage traditionally underrepresented students in engineering in research related to plant biotechnology. Of the twenty six participants, fifteen were women, eleven were underrepresented minorities and six were first generation community college students.

The campus has a long history of successfully competing for [extramurally funded research mentorship programs](#) that largely serve the needs of first generation, socio-economically disadvantaged and underrepresented students in STEM fields. Examples include the jointly funded Howard Hughes Medical Institute (HHMI)/NIH Biology Undergraduate Scholars Program ([BUSP](#)) managed by the College of Biological Sciences and established in 1988; the NSF-funded California Alliance for Minority Participation ([CAMP](#)) in STEM, now managed by the URCenter and established in 1991; and the Department of Education funded [McNair Scholars Program](#), managed by the Office of

Graduate Studies and established in 1997. Collectively, these programs are designed to prepare undergraduates in STEM fields for application to, admission to and success in graduate school. In addition to seminars and mentored research experiences during the academic year and summer, students also make research presentations at regional and national conferences each year.

Undergraduate Sponsored Research: Departmental Initiatives [CFRs 2.5, 2.8, 2.9, 2.13, 3.7, 4.4, 4.6]

Several departmental initiatives are in place for undergraduate research, often tied to honors programs, senior theses, senior design projects or internships. A few examples are described next.

Chemistry Department

Annual, adjudicated [Miller Symposium](#) and [Larock Undergraduate Research Symposium](#). Undergraduates also have opportunities to participate in research group meetings; and in contributing to written reports (sometimes as co-authors on publications).

Relationships with Industry for Career Development:

- In the Fall quarter, the department hosts chemical industry representatives in weekly course sessions for both undergraduate and graduate students called Careers in Chemistry (CHE 195/295).
- In the Winter the Miller Symposium presents a mix of academic and industrial speakers presenting seminars in medicinal and pharmaceutical chemistry, and the visitors have opportunities to interact with our students and faculty to learn about and comment on what we're doing.

International Exchange with Industry: In Spring quarter, industry representatives from the pharmaceutical sciences present weekly course seminars (CHE 130C) every Wednesday evening at 6 PM to undergraduates in our Pharmaceutical Chemistry major, which are simulcast live (two-way audio-video) to the Academia Sinaica, Taiwan's most prestigious research institute. Through the Quarter Abroad Program, 15 UC Davis undergraduates go to Taiwan each spring, along with several chemistry faculty and graduate student TAs to present the Pharmaceutical Chemistry curriculum to both our students and students from various Taiwanese institutions. UC Davis Academic Technology Services ensures that these simulcasts allow full interaction between people in the Davis and Taiwan lecture halls during and after the seminars.

Physics Department

AIP Career Pathways Project Review: In Spring 2011, the UC Davis Physics Department was selected for an American Institute of Physics (AIP) Career Pathways Project Review. These reviews are conducted by AIP to learn, and then disseminate, the effective practices of physics departments that are successful in placing students who receive the bachelor's degree as preparation for STEM careers. The [AIP Career Pathways Site Visit Report](#) noted favorably the wide selection of alternative degree paths available to students (p.2), career-related seminars that are of "significant value to students pursuing STEM careers" (p. 3-4), and an "intense upper division laboratory curriculum" (p. 4). The report concluded that undergraduate research opportunities, strong departmental advising, faculty

involvement, and a welcoming community of students contribute to the Physics Department's success in preparing its graduates for entering the STEM work force (p. 10). Conversations between physics faculty, engineering faculty, and engineering students to discuss the effectiveness of PHY 9 for engineering majors indicate that the course is working reasonably well and is not a factor in students switching out of engineering majors. The engineering faculty and students, and the physics faculty are generally satisfied with the course. However, the labs were identified as area for possible improvement. The Physics Department received funding to support the work in progress.

Art Department

The Art Department sends many students, both undergraduate and graduate, on to intensive summer programs that are competitive for independent creative research: two undergraduates have been accepted to Yale Norfolk in recent years – a competitive program for which only 25 students are chosen from several hundred students from nominating schools approved by Yale.

Honors and Senior Design Programs [CFRs 2.5, 2.8, 2.9, 2.11, 2.13]

To meet the needs and interests of high-achieving and highly motivated students, UC Davis offers [honors programs](#) by invitation and application, both campuswide and in individual departments. The [Integrated Studies Honors Program](#) (ISHP) is an invitational, residential program serving up to 171 high-achieving first-year students. The program provides an opportunity to study an [integrated curriculum](#) with a small cohort – within a major research university. Recent curricular developments have increased the role of research for students who elect to stay in the program after the first year. In the sophomore year, students may take a series of one-unit seminars, including a [seminar](#) designed to prepare students to do undergraduate research; in their junior or senior year, students complete a [full thesis series](#). The ISHP extends the opportunity to do research to community college transfer students who receive a Regents Scholarship: they take the "sophomore" seminars in the junior year, and can do a thesis in the senior year. Notably, Kristen Kelly, the 2011 recipient of the [University Medal](#), the highest campus honor awarded to a graduating senior in recognition of superior scholarship and achievement, was an ISHP transfer student.

[The Davis Honors Challenge \(DHC\)](#) offers a four-year comprehensive honors experience, to challenge, motivate, and assist students in developing “real-world” skills through interactive, discussion-based honors courses and seminars featuring collaborative multi-disciplinary team projects. Admission is by application and the program is tailored to individual interests. The program includes an optional first-year residential component. While the first two years are dedicated to coursework and skills development, the third and fourth years are project-oriented. The program concludes with a capstone [fourth-year project](#).

Several other departmental honors programs offer enhanced curricula and with a capstone, design and/or thesis option. For example, the Mathematics major offers [Undergraduate Senior Thesis in Mathematics](#), [research](#), and [internship](#) opportunities. The English department offers both [creative](#) and [critical](#) honors programs. The College of Engineering (COE) organized the Engineering Design Showcase in 2011 and 2012 to present student effort in senior design courses, engineering clubs and undergraduate work in research labs at UC Davis. It affords guests from industry an opportunity to

review the extraordinary achievements of the engineering students and the quality of the engineering education students are completing at UC Davis. The Engineering Design Showcase nearly doubled in size between 2011 and 2012. In 2011, there were 80 projects represented and close to 50 guests from industry who evaluated the student projects. In 2012, there were nearly 90 student teams and 600 faculty, staff, students, industry guests and supporters of the College participated in the event. The College provided funding to support a larger venue and expanded growth. The achievements of our students attracted attention from local [television](#) and [print media](#). Student teams were evaluated by guests from industry using a survey developed by the ABET Task Force and feedback was provided to assess outcomes specific to ABET.

Education Off-Campus: Abroad and Elsewhere [CFRs 2.1, 2.5, 2.8, 2.9, 2.11]

Study abroad can advance the student's progress toward the major, minor, GE or foreign language requirements. The [UC Davis Education Abroad Center](#) (EAC) provides students with global perspectives and close interactions with UC and international faculty members. EAC offers [Quarter Abroad](#) and [Summer Abroad](#) programs designed by UC Davis faculty and tailored for UC Davis students, opening the door to students for whom a year abroad is not feasible. In 2013-14, Quarter Abroad is scheduled to offer 9 programs in 9 countries. In 2013, Summer Abroad is scheduled to offer 42 programs in 25 countries. Additionally, EAC offers longer-term immersion programs through the Systemwide [UC Education Abroad Program](#) (UCEAP). Through UCEAP, students study primarily at international colleges and universities for periods ranging from 8 weeks in the summer to a full academic year. UCEAP offers 158 program options in 43 countries. Finally, EAC offers support for students who choose to study on non-UC independent or "third-party" study abroad programs.

[International internships](#) are available through EAC in coordination with the Internship and Career Center. Students can arrange to pursue research during their education abroad. The number of UC Davis students who earned credit towards a degree through study abroad has increased dramatically over the past decade, more than tripling from 489 in '00-01 to 1,529 in the '09-10 peak year (see [University Outreach and International Programs Annual Report 2010-11, p. 12.](#)) Both the [UC Davis EAC](#) and the systemwide [UCEAP](#) offer financial aid and scholarships to provide equal access for all UC students. Implementation of the Study Abroad data management tool is slated for 2013, and will enhance EAC planning and services by allowing more refined analysis, planning and outreach.

The [UC Davis Washington Program](#) places 30 students per quarter in the UCDC program housed at the University of California, Washington Center. Students live, study, research and intern in the nation's capital. A research seminar, elective course taught by UC faculty, and guest lecturers reflecting the special expertise of the nation's capital provide students with insight into how Washington works. Simultaneously held internships allow Washington Program students to use academic tools in professional contexts in one of over 1,200 participating organizations in the DC area.

The [Internship and Career Center](#) provides experiential education and career services to undergraduates, graduate students, postdocs and recent alumni. Internships allow students to explore career options, clarify academic goals, and gain the experience required to be competitive after graduation. Each year, the ICC offers students hundreds of [workshops](#) and [career resources](#). Over 630

companies and agencies have participated in the ICC's five internship and career fairs. In 2011-12, the ICC assisted students in securing 6,679 internship placements, including 214 international internships in 28 countries on 6 continents.

The ICC also supports the needs of graduate students and postdoctoral scholars. This engagement is strengthened through a shared staff position between ICC and Graduate Studies. One of the most important components of the GradPathways professional development program described earlier is the [Career Exploration, Job Searching and Networking](#) competency. The workshops and symposia are offered to help graduate students explore and prepare for a broad range of career options within and outside academia. The full range of career opportunities is highlighted in the annual [Pathways Career Symposium](#) held in January or February each year.

Leadership Opportunities [CFRs 2.9, 2.11, 2.13]

Our students become leaders and we develop their leadership qualities through both educational and experiential activities. In the campus [Report on Enhancement of Educational Objectives](#), students reported gaining leadership skills through participation in cocurricular social organizations (student clubs, community service, residence hall activities, ethnic or cultural events, fraternities and sororities), ASUCD (student government), performing arts, and sports (intramural and intercollegiate).

The [ASUCD](#), the official undergraduate student government of UC Davis, is a campus entity that plays a significant role in student life. Managed and staffed by students, the ASUCD has an operational budget in excess of \$11 million, and funds and administers a variety of student services, including [Unitrans](#), the campus and community bus system; [KDVS](#), the university radio station; and the open-enrollment [Experimental College](#). Large-scale annual campus-community events including [Picnic Day](#) and the [Whole Earth Festival](#) are student-run. The ASUCD is also the official undergraduate interface with campus administration.

The Center for Leadership Learning ([CLL](#)) was established to cultivate a new generation of civically and socially engaged leaders, and offers [leadership](#), [professional](#), and [diversity](#) development certification programs taught by staff, faculty and professionals from the surrounding communities. The CLL partners with the College of Agricultural and Environmental Sciences to support a [Contemporary Leadership Minor](#) program. Graduate students serve as mentors to undergraduate students to apply academic learning to real-world concerns. Undergraduates can serve on the [CLL student advisory committee](#). There are also a number of students who participate in the [Chancellor's Student Advisory Boards](#).

The Internship and Career Center's (ICC) [Community Service Resource Center](#) supports leadership through service. UC Davis was named to President Obama's 2012 Higher Education Community Service Honor Roll as a result of volunteer involvement of more than 14,400 UC Davis students, staff and faculty members who contributed 716,500 hours of community service over the span of one year. Students undertake internships, service-learning classroom-based opportunities overseen by the ICC, and service through participation in more than 500 university [clubs and organizations](#) managed by the [Center for Student Involvement](#) (CSI).

Graduate students participate in the governance of graduate student affairs through the UC Davis Graduate Student Association ([GSA](#)). Monthly GSA meetings include over 125 graduate student representatives who work to improve graduate education and student life; advocate for graduate student interests on policy committees; fund and administer key services such as legal aid and travel awards; and assist with student grievances. Student leaders in the GSA sit on UC Davis committees on policy and pressing concerns, as well as to represent the campus in systemwide convenings.

Creating Community [CFRs 1.5, 1.7, 2.11]

Our [Principles of Community](#) affirm, “Each of us has an obligation to the community of which we have chosen to be a part. We will strive to build a true community of spirit and purpose based on mutual respect and caring.”

The [University of California Undergraduate Experience Survey](#) (UCUES), a biannual UC-wide census of all undergraduates at the nine campuses, addresses several dimensions of campus climate. The [UCUES 2010 Campus Climate Report](#) (CCR) for UC Davis indicates that UC Davis fares well in comparison with the sister campuses, with students rating our campus as especially *friendly* and *caring* (CCR p. 2). UC Davis students “feel they belong” at this campus, that they are valued, and that students are respected regardless of class, gender, race, and religion (CCR p. 2). Although UC Davis is reported to have a climate that is, overall, friendly and caring, there are groups that report below the maximum. In questions concerning whether students are respected “regardless of personal characteristics,” UC Davis’s scores were closer to the maximum among UCs rather than the minimum (see CCR p.16). For example, on a 1-6 scale of agreement, UC Davis student average was a 4.58 (with a maximum of 4.87 and a minimum of 4.19 on sister campuses) in response to the question “students are respected here regardless of their race or ethnicity.” The score was 4.82 (with a maximum of 4.98 and a minimum of 4.67) in response to “students are respected here regardless of their gender.” The one score lower than at other UCs was in response to the statement, “students are respected here regardless of their sexual orientation” (4.33 at UC Davis with 4.52 as the UC minimum and 4.94 as the UC maximum). This response may be linked to the widely discussed defacing of our LGBT Resource Center in Winter Quarter 2010. We are attempting to increase our LGBT inclusivity through forums and resources such as the enhanced LGBT Resource Center that opened in 2012 in our new Student Community Center.

We have created a Student Community Center (SCC), home to several groups which provide open, safe, and inclusive spaces and communities committed to challenging discrimination, including the [LGBT Resource Center](#), the [Cross Cultural Center](#), [Student Recruitment and Retention Center](#), and outreach offices for ethnic studies programs and the [Women's Resources and Research Center](#). Notably, the building was largely funded by the student body, who approved referenda in 1999 and 2002 to pay additional fees to build a facility which would embody the Principles of Community — a commitment to being a learning environment that values diversity and is characterized by understanding and acceptance of all people.

The [Office of Campus Community Relations](#) (OCCR) is charged with fostering a healthy campus community. Their mission is “to ensure the attention to those components of the campus community that affect community, campus climate, diversity and inclusiveness.” The office provides leadership

in diversity education training, affirmative action, equity initiatives and campus community relations. With its campus partners, it is responsible for campus development and of policy, programs, initiatives and outreach efforts to increase diversity, improve campus climate and promote inclusiveness to ensure that our staff are well trained to meet the needs of a diverse student population. The OCCR convenes the Campus Council on Community and Diversity to advise the administration. The OCCR administers a campus-community engagement program to encourage and facilitate partnerships between the University and diverse groups in the surrounding community.

Support for Graduate Research [CFRs 2.5, 2.8, 2.13, 4.6, 4.8]

Research is a core component of the majority of graduate degrees, including all doctorates and thesis-based master's degrees. Providing support for graduate student research is a fundamental responsibility of every faculty member involved in graduate education. The research relationships between faculty and students are formally recognized through credit-bearing research/study courses offered by every graduate program. Faculty members serve as mentors and provide the necessary research environment, often including stipend support, to enable graduate students to succeed. Many faculty in the sciences also organize journal clubs to bring students together to discuss current topics in their discipline.

Graduate students receive funding from a variety of sources. One type of financial support is provided by a Graduate Student Researcher position funded on an extramural grant, particularly in the sciences and engineering. Faculty have been successful in garnering funding for training grants that focus broadly on student development beyond research, including several NSF-funded Integrative Graduate Education and Research Traineeships (IGERT), a NIH-funded Initiative for Maximizing Student Development (IMSD) program and numerous NIH-funded T32 training grants. The IMSD program is noteworthy in that it brings students to campus during the summer before they begin graduate study to provide a bridge to success through seminars and an early start on research. Similar student development opportunities exist in the humanities and social sciences through the Davis Humanities Institute programs, the Bilinski Educational Foundation award and a Mellon Foundation/ACLS award.

We have successfully competed for funding targeted to improve the success of URM students in STEM through programs including the NSF-funded Alliances for Graduate Education and the Professoriate (AGEP), the NIH-funded Initiative for Maximizing Student Development (IMSD) and Howard Hughes Medical Institute training programs (HHMI), which support students' transition to doctoral studies and enhance their preparation for future careers in academia.

For the past three years, graduate and professional students have organized an annual [Interdisciplinary Graduate and Professional Student Symposium](#) (IGPS). This event provides an opportunity for students from all disciplines to showcase their research with each other, the campus, and the community, and develop their research presentation skills in a highly interdisciplinary research environment. Graduate students organize all events, serve as session chairs for oral presentations, and arrange for faculty judges to evaluate the merits of the talks, exhibits, posters and performances. Nearly all deans and many key administrators contribute funding to support cash prizes offered to the best work in each of the entry categories.

Graduate students are also taught that integrity is a foundational element of successful research practices. Annually, The Office of Graduate Studies and the Office of Research partner to offer a [Responsible Conduct of Research \(RCR\) seminar series](#) for graduate students and postdoctoral scholars. The RCR program provides graduate students, postdoctoral scholars, faculty, staff and NSF funded undergraduate students with information, training, and tools to address the increasingly complex issues that they will confront during their careers. In addition, the RCR program meets the rigorous standards to satisfy NIH and NSF training grant requirements for responsible and ethical conduct of research training programs.

Graduate Student Professional Development [CFRs 2.4, 2.9, 2.13, 3.4]

UC Davis promotes the success of graduate students in academic and professional programs, and is recognized nationally as a leader in offering professional development opportunities for graduate students. The new [Graduate Student Life](#) unit in Graduate Studies provides direct and supportive services for UC Davis graduate students, faculty and staff members. Its mission is to enhance graduate student success and retention at UC Davis by providing advising and counseling, professional development services and support for increasing diversity.

A Professional Development Series is offered by the Office of Graduate Studies and the Internship and Career Center (ICC). In Fall 2012, this series was expanded and renamed [GradPathways](#), a program that enhances research skills and provides activities that promote the success of graduate students. The eight competencies in GradPathways include Success/Socialization in Your Graduate Program; Writing and Publishing; Presentation Skills; Teaching and Mentoring; Leadership and Management; Scholarly Integrity and Professionalism; Career Exploration, Job Searching and Networking; and Wellness and Life Balance. In addition to the ICC, GradPathways engages other campus partners including the University Writing Program and the Center for Excellence in Teaching and Learning.

[The Center for Excellence in Teaching and Learning](#) (CETL) helps graduate students improve their teaching skills through workshops and the Teaching Assistant Consultants peer mentoring program. Graduate students and postdoctoral scholars are encouraged to apply to the very competitive [Professors for the Future](#) development program which prepares future faculty to understand how a university works and how to get things done within the university structure. The program revolves around individual projects that each student undertakes, many of which later become regular activities of Graduate Studies or part of GradPathways.

Established in 2010-11, the [Mentoring at Critical Transitions Program](#) promotes faculty mentorship of graduate students with the specific aim of increasing graduate student awareness of and participation in conferences, symposia, and professional association meetings as well as encouraging them to publish and teach. Faculty participating in the program's seminars learn valuable and timely information drawn from recent research on each of the three critical transitions—applicant to student, coursework to research, and research to professional career—as well as best practices in mentoring, including specifics relating to disciplinary and demographic groups. The program recognizes and promotes the principle that to achieve quality, excellence, and diversity in our graduate student and faculty ranks, all faculty members of the graduate community must actively

participate in mentoring efforts with the level of competence required for the task.

Student Success IV: Ensuring Success

Through our student health and wellness and counseling, specialized support for English as a second language learners, and programs to assist first-generation and at-risk students, UC Davis helps students succeed academically and fully participate in the life of our research university.

Health, Wellness, Counseling [CFRs 2.11, 2.13]

[Student Health and Counseling Services](#) offers medical services to students through the [Student Health and Wellness Center](#), and mental health services through [Counseling and Psychological Services](#) (CAPS). Campus has recently completed construction on the new Student Health and Wellness Center, a state-of-the-art facility which uses the newest technology and latest trends in student health care to enhance student visits and delivery of care. The Student Health and Wellness Center allows Student Health Services to meet enrollment demands, improve accessibility, and support students' academic success. The \$50.3 million project was funded by student fees (Campus Expansion Initiative fees, approved by students). All students are required to have health insurance. They may obtain coverage through the systemwide UC Student Health Insurance Program (UC SHIP) or under comparable coverage available through a parent, spouse or partner.

Utilization data consistently show the fact that graduate students avail themselves of the services of the Counseling and Psychological Services (CAPS) at much higher rates than undergraduates. Yet, for many years graduate students also noted that their peers were reluctant to visit counselors in CAPS because they were afraid of running into undergraduates for whom they might be a TA. In 2007, Graduate Studies and CAPS instituted a successful partnership under which a CAPS psychologist schedules appointments at the Office of Graduate Studies rather than at the CAPS office two days per week. More recently, the campus has created a [Community Advising Network](#) (CAN) of non-clinical, multi-culturally aware counselors to help bridge the gap between student needs and helpful resources. These counselors are strategically placed in student services units across the campus.

The Department of [Campus Recreation and Unions](#) (CRU) fosters a sense of physical and social wellness through the variety of recreational programs, resources, and facilities it makes available to students. CRU serves the student body with its state-of-the-art Activities & Recreation Center and Schaal Aquatic Center; equestrian and craft centers; trips organized through its Outdoor Adventures program; a games area; intramural sports programs and sports clubs; and its administration of various other fitness and wellness programs.

English as a Second Language [CFRs 1.5, 2.13, 4.2, 4.3, 4.6]

The [Department of Linguistics](#) offers English as a second language (ESL) courses that historically were designed to serve recent and long-term immigrants, and students whose home language is not English but in recent years an increasing number of undergraduate international students are also enrolled. Through Linguistic courses 21, 22, and 23, academic writing instruction courses assist students with learning basic writing skills and mechanics that are prerequisite to the “Workload 57”

course, in which earning a grade of “C” or better satisfies the University of California’s [Entry Level Writing Requirement \(ELWR\)](#).

Prior to 2011-12, international students made up approximately 15% of the students placed in the Linguistics writing courses, based on placement decisions by linguistic instructors in consultation with personnel in the [Entry Level Writing Program](#) who evaluate papers from students who have taken and failed the [Analytical Writing Placement Exam](#) (AWPE). With hefty increases in international enrollment, these students now comprise more than 50% of the population in Linguistics 21-23. Anticipating this growth scenario, additional campus resources were allocated to the Department of Linguistics to support these writing courses including adding administrative support for program oversight. With the temporary appointment of a 50% academic coordinator for 2012-13 (concluding at the end of summer), the program of instruction quickly doubled its capacity to identify, test, place, and provide appropriate writing instruction for this expanding population of English learners.

The Department of Linguistics also ramped up its [PAL Program](#), (“partners in acquiring language” or PALs) which for more than twenty years has been pairing international students (as “buddies”) with native speakers of English, for informal and voluntary conversation practice. The program’s goal is to foster mutually beneficial friendships between “partners” whose participation in the program is based on a desire and willingness to share knowledge about their respective languages and cultures. In the first two quarters of 2012-13 there were more than 400 PAL pairings.

Other ESL support services are the workshops and tutoring offered by the [Student Academic Success Center](#). In addition to workshops focused on writing and speech development, are also workshops and opportunities designed to facilitate conversational skills put to practice and intercultural exchange. A credit-bearing seminar series designed to help international students understand more about American culture and the university experience is being piloted in 2012-13. Offered through SASC in cooperation with the School of Education and Services for International Students and Scholars, EDU 98 – “American Cultural Values & the University Experience” uses graduate students as teaching assistants from departments across campus to explore American cultural values and highlight opportunities for students to become involved at the university and in American life (see [Ex. 46](#)).

Academic Support for At-Risk Students [CFRs 1.5, 2.12, 2.13]

[The Student Academic Success Center](#) (SASC) serves as a vital resource for all UC Davis students, and provides specialized support services to targeted student populations. SASC aims to enhance student learning and create an environment that promotes academic success, social engagement and personal development by offering free academic assistance (skill development [workshops](#), instruction, tutoring, testing, advising, mentoring, and research opportunities). SASC coordinates several programs that offer enhanced opportunities and support targeted to URM, first-generation, and at-risk populations, including the Educational Opportunity Program ([EOP](#)), [Guardian Scholars](#), [TRiO Scholars](#), and [MURALS](#) programs. The Educational Opportunity Program aims to improve the access, retention and graduation of students from all ethnic backgrounds who have been disadvantaged, either socially or economically. Admitted EOP freshmen are invited to participate in the Special Transitional Enrichment Program ([STEP](#)). Once a student is enrolled, the [EOP Information Center](#)

continues to provide assistance with academic planning, skill development, career and personal counseling and course tutoring. SASC is also home to [Pre-Graduate/Professional Advising](#) open to all students tracking toward post-baccalaureate educational pathways, and to the [Transfer Reentry Veteran's Center](#).

Outcomes [CFR 2.6]

Student success is measured in part by post-graduation employment, or enrollment in desirable graduate programs.

Undergraduate Students

After obtaining their bachelor's degree, most alumni go on to graduate studies or full-time employment in the field of their choice. Enrollment and employment trends indicate that within one year after graduation, 90% of 2008 graduates are either employed full-time (52%) or enrolled in a post-baccalaureate program (37%). More detail is available in the most recent of our triennial surveys of recent undergraduates, [Survey of 2007-08 Baccalaureate Degree Recipients Educational and Occupational Outcomes](#) (2010). These report that among graduates going on to post-baccalaureate study, 80% were successfully admitted into their first or second choice of programs (p. 8). Despite the challenges the economy posed for 2007-08 graduates entering the work force, the percentage finding work in their chosen field remained high. (p. 16).

Graduate Students

At the graduate level, exit surveys of doctoral students collected by the Office of Graduate Studies reported the following: 77.3% of the doctoral graduates from the 2010-11 academic year had secured professional employment or an appointment as a Postdoctoral Scholar, or planned further academic study at the time of graduation. (See again [Ex. 12](#) for examples.) An additional 13.0% were actively seeking employment, with fewer than 10% of doctoral degree recipients undecided about their future plans. Of those with or seeking employment, 47.38% planned to continue working in an academic setting at a 4-year college or university. The greatest percentage of doctoral degree recipients—32.75%—were moving into a postdoctoral appointment, followed by non-faculty researchers (16.16%), engineering positions (8.3%), and Assistant or Associate Professor positions (5.46%). Almost 23% of the doctoral recipients planned to remain in California, with an additional 70% remaining in the United States. Only 7% of UC Davis doctoral graduates, more than half of those international students, planned to work outside of the United States after graduation.

The sections above have outlined UC Davis's definition of student success, the programs supporting student success, and the measures used to determine student success. Essay 4 turns to the means by which the campus will sustain and improve educational effectiveness in the coming years.

Essay 4: Ensuring Institutional Capacity and Effectiveness in the Future, and Planning for the Changing Environment for Higher Education

We find ourselves at a defining moment in the history of UC Davis. While the campus is at the pinnacle of its success as an institution, with the highest research funding in its history, the highest rankings as a public university that it has ever achieved, and in the final stages of the largest capital campaign it has ever undertaken, it nonetheless faces perhaps the greatest challenge in its history due to the unprecedented and precipitous reductions in state support that have occurred in the last few years.

Joint Report of the 2020 Task Forces

The 2020 Initiative task forces stimulated a comprehensive consideration of almost every aspect of the university's operation, as this joint administrative and Academic Senate effort tried to anticipate the impact of growth on the financial, personnel, physical, technological and academic needs of the campus. The sections of this essay provide evidence of attention to institutional capacity and effectiveness in each of these areas, in addition to explanations of strategic planning at all levels of the university.

Financial Sustainability [CFR 1.3, 1.8, 3.5]

UC Davis's [budget](#) of approximately \$3.6 billion includes a critical \$703 million in state and tuition funds that provides the primary source of funding for instruction and academic support. State funds allocated to the campus by the University of California system are reflected in the UC system consolidated [audited financial reports](#), which, along with the [UC Davis's financial reports for 2000-11](#), are publicly available online. (A WASC Financial Review Committee panel reviewed our financial information and concluded in a letter dated November 20, 2012, that the data could not be evaluated independently. See [Ex. 53](#).) In recent years, the campus budget process has necessarily focused on addressing substantial reductions in state support (i.e., reductions of about 40% over five years). As outlined below, the campus has undertaken several strategic initiatives to ensure financial sustainability.

Strategic Initiatives Aimed at Ensuring Financial Stability [CFRs 1.3, 1.8, 3.5, 4.1, 4.2, 4.3]

Budget reductions have been assigned using a variety of strategic approaches. In 2011-12, the campus focused on a three-part, multi-year strategy to diversify revenues, increase efficiencies and decrease costs. The call letter for the 2013-14 budget process includes modest reinvestments in student success, even as the campus continues to address a structural gap in core state and tuition fund support. More information is available at the [Budget Planning](#) website.

The [2020 Initiative](#) offers a framework for multi-year budget planning. Detailed analysis and

modeling of various enrollment scenarios provide the campus leadership with revenue and expense estimates that will be paired with academic plans to inform faculty recruitment proposals and targeted investments to support growth (e.g., services for international students, advising, classrooms and other facilities, instructional support).

The campus has been successful at obtaining support from donations and sponsored research. The [Campaign for UC Davis](#) set an ambitious goal of raising \$1 billion from 100,000 donors, and as of February 2013, the campus has inspired the commitment of \$915 million from 98,095 donors. In addition, the Office of Research, reorganized in 2011 with a new Vice Chancellor and three new Associate Vice Chancellors, supported the campus in breaking previous records for sponsored research; in 2011-12, the campus attracted \$750 million, a gain of \$65 million, up 9.6% from the previous year.

Incentive-based budget model: In 2012-13, the campus implemented a new budget model to improve transparency, advance the goals identified in our [UC Davis: A Vision of Excellence](#), and encourage creativity. Resources are allocated to schools and colleges based on how the revenues are generated. For example, undergraduate tuition allocations are driven by instructional workload (student-credit hours and majors) and student completion (degrees awarded). The model gives deans a better ability to forecast budget impact of growth or changes to instructional programs. Overviews of the new budget model and white papers for various revenues and allocation summaries are [published](#) online. In this effort, the provost consults the Academic Senate through the Committee of Planning and Budget, and the deans consult the Faculty Executive Committees in their colleges and schools.

Data-driven approaches: In 2011, the campus implemented the provost's Dashboard, a tool that provides the campus users easy access to comparative trends about students, faculty and academic programs. There is an ongoing effort to incorporate data metrics into the annual budget process and faculty recruitment call. Further, the [Budget & Institutional Analysis](#) unit has a long-standing practice of preparing analyses and white papers to support the budget process and other resource decisions.

Strategic Planning at the University Level [CFRs 1.3, 3.8, 3.10, 4.1, 4.2, 4.3]

The strategic planning at UC Davis for the last decade begins with "The UC Davis Vision: The Campus's Strategic Plan" ([Ex. 13](#)), which guided the course for the campus beginning in Fall 2003. The plan set forth the university's mission, vision, distinctions and strategies for achieving the three primary goals of learning, discovery and engagement. Annual progress reports with a complete set of metrics to assess success further defined the means by which the university strove to attain its aspirational objectives. This document allowed separate educational initiatives to be linked to an action agenda, and it communicated the university's commitment to institutional excellence to both internal and external audiences. In 2008, the plan reached its fifth year of implementation, a benchmark that together with the milestone of UC Davis's Centennial (2008-09), offered the campus an opportunity to take stock of its progress and refocus its vision for the next century.

In 2009-10, with many of the last plan's objectives met, the next vision was set under the leadership of a new Chancellor, Linda P.B. Katehi. The bold goals that it outlined would situate the campus

among the very best public research universities in the nation. To refine the vision and ensure its success, Chancellor Katehi invited feedback from all members of the campus community. The resulting document, our Vision of Excellence ([Ex. 14](#)), provides a framework for broad campus aspirations, and engenders the more specific academic directions that will be created by the university's academic and administrative units in the immediate future.

In her Fall 2011 [Convocation speech](#), the chancellor called attention to the new challenges facing the campus as a result of significant reductions in state support over the preceding years. These reductions, coming at an unprecedented rate, challenged the ability of the campus to achieve the aspirations put forward in the [Vision of Excellence](#). The chancellor launched the [2020 Initiative](#) as a proposal to support a sustainable financial future for the university while simultaneously achieving several of the goals put forward in the Vision of Excellence. Once again, a broadly consultative approach was used to examine and evaluate the strategies proposed by the Initiative's joint task force. Three task forces – Academic Resources, Enrollment Management, and Facilities Planning – each composed of faculty, staff and students – met over a period of sixteen months. The membership of these task forces, and a summary of their meetings, is available in [Joint Report of the 2020 Task Forces](#) (pp. 37-42). The task forces discussed and debated the ideas put forward, compiled and distributed a joint report, and engaged stakeholder groups on and off campus in a series of lively discussions of the ideas proposed. The Academic Senate recently transmitted its formal response ([Ex. 48](#)) to the above-mentioned Task Force report. A formal implementation plan, responsive to this and other inputs, will be published, updated and monitored (by both administration and the several committees of the Academic Senate) on an annual basis.

A major concern of the Joint Report of the 2020 Task Forces is that any plan adopted should increase the financial sustainability of the institution; there is no interest in growing for growth's sake. Almost every course of action proposed in the Vision of Excellence is contingent on sufficient financial resources, and the possibility of obtaining net additional revenue from the growth proposed in the 2020 Initiative is under discussion. However, it is equally important to ensure that the new students be fully supported in receiving an outstanding educational experience, and a significant proportion of the task force's efforts were directed at defining and estimating the cost of providing this support.

The premise of the 2020 Initiative is that through carefully managed growth, the campus can improve its financial situation while simultaneously accomplishing several important goals laid out in the Vision of Excellence, including internationalizing the university while sustaining access for California students, investing in new and innovative areas of research, and nurturing the economic vitality of the region. In its current state, the proposal foresees the gradual addition of approximately 5,000 students to the undergraduate population of the campus, with increases in the number of graduate students, staff and faculty and investments in the physical infrastructure of the campus. A majority of these students would be non-residents, bringing supplemental tuition that may provide revenue significantly beyond that necessary to support investments required for growth. UC Davis, with the largest physical footprint in the UC system, has a unique capacity to expand. During the 2020 process our campus community has discussed ways that expansion and revenue enhancements can occur, while preserving the access for California residents that is fundamental to our land-grant mission.

Strategic Planning at the Graduate and Professional Level: Graduate Task Force Report [CFRs 1.3, 3.8, 3.11, 4.1, 4.2, 4.3, 4.8]

In 2011, a [Joint Administration/Academic Senate Special Task Force on Graduate Education at UC Davis](#) was appointed by the provost and the chair of the Academic Senate to provide a strategic vision for the future of graduate education at UC Davis. Specifically, the Task Force is “charged with conducting investigation, consultation, analysis, and deliberation in order to recommend ways to advance the excellence, contributions, and vitality of graduate education at UC Davis. Rather than being a standard review of either the existing Graduate Studies unit or our many graduate and professional degree programs, the charge of the Task Force is to engage in a visioning process that aims to articulate what we want graduate education at UC Davis to be or become as we approach 2020. The charge is to answer the question ‘what’ much more than ‘how.’”

Throughout 2011-12, the Task Force held numerous meetings, engaged in town hall discussions and invited experts from the graduate education community to campus to provide a national perspective. It submitted a [final report](#) at the end of Spring 2012. The Task Force made numerous specific recommendations that can be categorized into four broad thematic areas. The first is to “Commit to Graduate Education as a Strategic Priority.” The Task Force argued that graduate education be valued because it builds strength within a discipline and also capitalizes on the rich array of research collaborations at UC Davis, expanding the application of core knowledge to innovative partnerships. The second area is to “Enhance the Environment for Graduate Student Success as Integral to UC Davis Excellence,” which the Task Force believed would enable graduate students to achieve their highest potential through access to financial support, to opportunities for both scholastic mentorship and professional advisement on their career choices, and to social and professional networking in a vibrant graduate student and campus community. The Taskforce also considered the role of faculty in graduate education, citing the need for faculty to embrace the principle of mentorship as both a privilege and responsibility as key efforts of their third recommendation, to “Engage and Recognize Faculty Participation (in graduate education).” Finally, the Task Force advocated that the campus should honor the land grant principle of engaged scholarship and develop distinctive programs that “Value the Societal Relevance of Graduate Education at UC Davis.” Within each of these topical areas there are multiple ideas that define the broad vision for the future of graduate education at UC Davis, providing rich guidance for the campus to strengthen graduate education and to excel.

Going forward, an implementation advisory committee consisting of the Dean of Graduate Studies, other administrators and Graduate Council will soon be tasked with examining the response received from the campus to the Task Force report, and prioritize recommendations. Their advice on implementation will be presented to the provost and the Chair of the Academic Senate. The Dean of Graduate Studies and Graduate Council will work with Council of Deans and Vice-Chancellors (CoDVC), the Academic Senate, and constituent groups such as the Graduate Student Association to implement the most promising ideas that fall within their purviews.

Strategic Planning at the College-, School- and Division- Levels [CFRs 3.8, 3.11, 4.1, 4.2, 4.3]

Planning also occurs regularly at the college level, a process that involves departments, faculty advisory and college executive committees, and, ultimately, deans. These deliberations produce final

plans that reflect the majority view of the college and are submitted to the provost. Academic plans most often cover five-year periods. The most current set of [academic plans for the colleges and schools at UC Davis](#) can be found online. While the college academic plans accurately summarize the intentions and aspirations of the individual colleges, the consolidation of these plans does not necessarily define the academic plan for the university as a whole.

Maintaining a broad portfolio of disciplines consistent with the teaching, research and service missions of the university is part of the process of making final decisions regarding implementation of each unit's academic plan. Although the colleges develop their strategic plans autonomously, their aspirations may exceed the resources available to the university; as a result the deans work collaboratively with the provost to consider the specific elements of each plan, the availability of resources, and the need to build on strong programs and strengthen weaker ones. This process culminates in the authorization by the provost on an annual basis of faculty searches in each college.

Sustaining Faculty and Staff: Hiring and Professional Development [CFRs 3.1, 3.2, 3.3, 3.4]

Professional qualifications for the appointment of professors are defined for the UC system in the UC Academic Personnel Manual ([APM 220](#)); candidates for appointment, merit increase or promotion of professors include teaching, research and creative work, professional competence and activity, and university and public service. UC Davis is committed to employing a faculty sufficient in number, professional qualifications, and diversity to achieve its educational objectives, to establish and oversee academic policies, and to ensure the integrity and continuity of its academic programs wherever and however delivered.

The provost's annual [budget update letter](#) requests hiring proposals from the Deans. Each year, deans submit requests to the provost for the authorization to recruit for one or more positions, as appropriate given their academic plan. The requests may be for positions recently vacated (retirement, resignation) or for positions to be funded through growth. These requests are reviewed by the provost in consultation with senior staff to assure that the necessary resources are available and that the hires are aligned with campus priorities. Based on the needs of a particular unit and the overall campus, the provost communicates to the deans which positions they are authorized to recruit and provides expectations and some commitments for start-up costs.

The guidelines for the faculty hiring process are dynamic, and have been subject to recent revisions as the campus moves to a new budget model. The currently proposed process is described in a working document, [Incentive-Based Budget Model: Faculty Resources](#), posted on the campus budget office web site. Appendix III of the document describes in some detail the changing practices governing the faculty hiring process over recent years, through periods of growth and contraction. Once authorization for a search has been given, the search process proceeds according to UC Davis and UC systemwide [policies and procedures](#).

In 2011-12, 59 new faculty members joined the ladder ranks, bringing the total to 1,477, a figure below the ten-year average but showing an increase from the low point in 2009-10. [Statistics for ladder faculty hiring](#) are published online. (For additional statistics on faculty at UC Davis, see [Ex. 4.1 – 4.3.](#)) [APM 500 – Recruitment](#) and [UCD 500 – Academic Recruitment Guidelines](#) outline UC Davis's

commitment to recruiting a diverse and qualified faculty. In keeping with the goals and values articulated in the systemwide [Statement on Diversity](#) and the UC Davis [Principles of Community](#), UC Davis seeks to achieve diversity among its employees. UC Davis's [Affirmative Action Plan](#), which outlines the hiring goals and related programs for the campus and provides data on hires for the previous year, is updated annually.

New faculty are offered orientation and continuing professional development opportunities through workshops provided by the Office of the Vice Provost – Academic Affairs (VPAA). In this process it is made clear that academic policies are established and overseen by the Academic Senate, according to the principle of [Shared Governance](#) cited in Essay 1. The faculty authority, duties, powers and privilege are outlined in the [Standing Orders of the Regents, 105.2](#). Both a day-long [New Faculty Workshop](#) and a monthly [brown bag series](#) are held. For newly appointed department chairs, a mandatory two-day [New Chairs Workshop](#) offers information, policies, and resources, including sessions designed to assist in the understanding of the faculty review process and in mentoring newly appointed and junior faculty. VPAA also provides a series [of monthly brown bag sessions for chairs](#) and a [handbook for department chairs and program directors](#). Merit and promotion processes for faculty and teaching staff are designed to review individuals in areas of teaching, research and service. Teaching is reviewed in person by chairs or colleagues and by survey through student evaluations (these are part of the [APM 220](#) process). The Academic Senate outlines the voting procedures for advancement actions of Senate faculty through their bylaws, specifically, [Bylaw 55](#).

UC Davis employs a number of non-tenure track teaching faculty. Lecturers with security of employment (SOE) are members of the Academic Senate, and [Lecturers](#) are members of the [Academic Federation](#). The UC Davis Academic Federation consists of about 1,200 academic appointees at UC Davis who hold appointments in one or more of the designated academic title series, as listed in [APM 220AF](#), and who are not members of the Academic Senate. The Academic Federation, unique to UC Davis, plays an important role in the educational mission of the campus by allowing its members shared governance on the campus through participation on committees. While Academic Federation members are not eligible for SOE they may earn permanency. Federation members undergo review, according to processes listed in APM 220. While Unit 18 lecturers are considered members of the Academic Federation, their collective bargaining agreement governs all aspects of their employment.

To help staff at all levels from orientation to professional advancement and to retirement, UC Davis Human Resources offers a number of opportunities for [staff training and development](#). Staff are included in decision making through participation in Administrative Advisory Committees, Town Halls, and recruitment panels, and in addition to the Academic Federation, [Staff Assembly](#) provides a collective voice.

Accommodating Growth [CFRs 1.2, 1.3, 1.8, 3.1, 3.2, 3.5, 4.2, 4.3]

Significant growth in the number of students will present immediate challenges, but each of these is likewise an opportunity...

[Joint Report of the 2020 Task Forces](#)

Physical Planning [CFRs 3.5, 3.6, 4.1, 4.2, 4.3]

A significant growth in enrollment would create a need for more instructional and residential space for students. UC Davis's 5,300 acre campus could allow room for expanding the university, and that expansion offers a possibility to be innovative. As the Joint Report of the 2020 Task Forces notes, "the need to add instructional space provides a rare opportunity to build classrooms that fit the demands of the pedagogy of the 21st century."

The [Administrative and Resource Management \(ARM\) annual report](#) offers a short-term picture for physical planning, and the [2003 Long Range Development Plan](#) (LRDP) articulates goals, principles and objectives for land-use planning for the Davis campus through 2015-2016, including plans for conversion of [Teaching and Research Fields](#) for other uses. The LRDP is guided by the goals of creating supportive, connected, and sustainable places that enhance student success. These goals are further developed in the [UC Davis Physical Design Framework](#) (2008-09), which describes a vision for creating a physical environment at UC Davis that supports the academic mission and enhances personal and environmental health. This framework establishes criteria that the campus uses to judge the success of proposed projects with regard to planning and design, and is used regularly by campus planners, architects and others to guide the effective incorporation of these goals into all projects that modify the built environment. For example, the goal to "Create Connected Places" contributes to campus community (and thus supports student success) by incorporating "Meaning" and "Delight" alongside "Flexibility," "Interactivity, and "Wise Resource Use."

UC Davis has undergone a number of capital improvements over the last ten years, including research laboratories, classrooms, instruction and research facilities, student housing, and other student support facilities, variously funded by gifts, student-elected fees, and state and campus funds ([Ex. 9](#)). Current plans include the expansion of housing for students, faculty and staff in West Village; several [Student Affairs capital projects](#) which enhance student life; the Jan and Maria Manetti Shrem Museum of Art, funded in part by a \$10 million gift, which will provide approximately 40,000 square feet of contemporary space for galleries, seminars, research and public gatherings, and house the university's fine arts collection. A 500-seat lecture hall is also slated to be built and available for use as early as 2015.

The University Library is an integral part of the University of California, Davis, and one of the top 100 research libraries in the United States. Dramatic forces of change are affecting libraries today, along with every organization involved in the production, communication and receipt of knowledge. These forces include advances in technology that shift the ways scholars perform research and the locations in which research is performed. The Library, responding to these forces and campus growth has, under new leadership, begun to leverage new technology and develop innovative uses of its physical spaces. It has also created a [Strategic Plan](#) ([Ex. 49](#)), based upon input from students, faculty, and staff. Now being implemented, this plan commits the organization to be flexible, adaptive, and committed to continuous improvement through embedded assessment metrics.

Sustainable 2nd Century

A commitment to economic, environmental, and social stability is a hallmark of UC Davis. In the

[Sustainable 2nd Century](#), our campus has challenged itself to question current operations — from landscape irrigation to laboratory work to heating and cooling — and re-envision a more sustainable campus, both environmentally and economically. Thus, our economic sustainability is part of a campus ethos of investing in solutions for building management, energy systems, climate, transportation, waste reduction, dining, and water and landscaping.

Our campus commitment to sustainability is an example of how UC Davis’s unified approach to teaching, research, and service can permeate disciplinary boundaries and reach across administrative, academic, and student-life compartments to address society’s (and the campus’s) most pressing problems. Sustainability research and teaching find expression throughout the colleges, in [engineering](#), [agriculture](#), the [sciences](#) and the [arts](#). It is manifest in the commitment to [LEED-certified construction for all new buildings](#); in our [zero-net-energy planned community](#) and in our [zero-waste student-run campus festivals](#); in laboratory experiments, campus [institutes](#), and dining hall practices. UC Davis’s 2012 recognition as the Sierra Club’s “[#1 Cool School](#)” was the combined result of research and teaching, campus planning and stewardship, [staff-](#) and [student-run](#) initiatives, [teams](#), and day-to-day service commitments.

Supporting International Students [CFRs 1.5, 2.13, 4.1, 4.2, 4.3]

An issue of particular concern to the 2020 task forces was the ability of the campus to recruit and enroll international students and to support them adequately after their matriculation at the university. Significantly increased resources must be invested in recruitment to develop a pool of international students that will be successful and fit well in our academic community, with its high academic standards. Moreover, greatly increased attention must be focused on support for reading, writing, speaking and oral comprehension of English for students in need of such assistance. In contemplating the pressures on academic support services resulting from growth in student number, it was also determined by the task forces that there was a need for substantial investment in advising support for all students. (Plans to improve advising are discussed further in the Integrative Essay.)

The challenges involved in implementing the 2020 Initiative are already apparent. Enrollments of undergraduate California residents at UC Davis have increased from 6,901 (4,368 freshmen and 2,533 transfer) in 2010, to 7,451 (4,839 freshmen and 2,612 transfer) in 2012. Over the same period, we have significantly increased our international undergraduate population, though still small in both absolute numbers and a percentage of the whole, moving from 381 to 665 students a year. This rapid growth in undergraduate enrollment was in part a result of new and robust yield efforts with respect to admissions that succeeded beyond expectations. The admissions policies and enrollment strategies with which the Office of Admissions operates are being examined and refined so as to ensure that we are admitting and enrolling academically qualified students. Although this is challenging because of our lack of relevant historical data concerning yield rates for large international applicant pools, as well as some uncertainty, both systemwide and at UC Davis, about how to compare academic records from many different countries, data concerning the most recent admissions cycle show that national and international admitted students are comparable to California residents in terms of academic qualifications ([Ex. 43](#)).

This international enrollment growth, while within the capacity of our institution, has provided the

campus with additional motivation to begin addressing problem areas, including efficient mechanisms for registration, demand prediction, and ultimately providing sufficient seats, especially in crucial GE courses and lab courses in the introductory science series.

English as a Second Language (ESL) Support [CFRs 2.13, 4.1, 4.2, 4.3]

Support for international students involves planning the enhancement of ESL services, which will serve our heritage or generation 1.5 ESL students (defined as those who grew up with at least one non-native English speaking parent) as well. Increasing international student enrollments creates extraordinary opportunities; at the same time many of these talented students come from language, cultural, and educational backgrounds significantly different from the United States. Related to the proposal for increasing the number of international students as part of campus growth, international graduate students would benefit from more integrated services, just as undergraduates would. International graduate students may need more- or more intensive- advising, dissertation mentoring, academic language development support or other services than do domestic graduate students. Providing these services is essential for their success as independent researchers and as teachers. Our challenge is to mobilize our campus resources and strengths to support all international students in our learning community to ensure their success. Critical to this strategy is building on existing campus capabilities and creating partnerships to give students the tools they need to succeed. While our attention is currently on enhancing international-student ESL services, we are aware that our heritage students also need attention in the ESL program to ensure that they are receiving effective writing instruction. It is our intention to improve ESL for both populations within the next year.

We have the institutional capacity to help international and heritage ESL students reach their goals, via the Student Academic Success Center, Undergraduate Admissions, the Center for Excellence in Teaching and Learning, Summer Sessions, the Departments of Linguistics and the University Writing Program. Also involved are UC Davis Extension, University Outreach and International Programs, and Services for International Students and Scholars. Currently faculty and staff across several of these programs are collaborating to enhance offerings for international undergraduate ESL support in 2013-14. These include adding a voluntary summer six-week orientation to help students adjust socially and academically, an increased emphasis on speaking and listening in their ESL coursework, and creating intentionally blended classroom environments that enable international and non-international students to challenge and learn from each other. We also plan to assess the effectiveness of our writing support for heritage ESL students.

Enrollment Management [CFRs 1.7, 1.8, 2.4, 2.12, 2.13, 4.4]

Availability of Gateway Courses

Early in 2010, concern that recent budget cuts had led to a decrease in course availability prompted the VPUE office to monitor course enrollments at key points in the registration process. The study indicated that while the budget cuts had not led to a decrease in seats offered, there was a continuing problem with course availability that needed to be addressed. The analysis confirmed what many had known anecdotally: many classes were full and had long waitlists each term. The course availability study was repeated each quarter, collecting data on planned course offerings and course enrollments

and waitlists during the registration process.

This led to the identification of a group of courses referred to as critical “gateways” to student success: primarily freshman-level prerequisites to major requirements, such as first courses in biological sciences, chemistry, mathematics and physics. Upper division writing courses, required of most students, were also included. Using the enrollment information, the VPUE office worked with the colleges to investigate ways to meet student demand. Supplemental instructional funding was provided where needed to hire additional lecturers and teaching assistants. While these efforts improved course availability, they did not fully resolve the problems.

While we have made progress, the limited number of seats available in large lecture and limitations on laboratory sections (discussed below in the Chemistry 2 example), especially for gateway courses, challenges campus aspirations to increase and internationalize our undergraduate student community and ensure that students make timely progress through their coursework. New investments and creative thinking are required to ensure that sufficient sections of these courses are available. A high-priority investment of campus capital resources will make a new 500-seat lecture hall available for use as early as 2015. There are several short-term measures underway to meet the challenge of the intervening years. First, the campus will prioritize existing large lecture halls for use by heavily impacted large lower division courses that are required for students to advance in their majors (for example, freshman chemistry, calculus, and biological sciences). To do this the VPUE is leading an initiative that will enable the Registrar’s timely prediction of enrollment in these courses; set aside sufficient seats early enough to avoid the need to add sections at the last minute; provide better information to maintain confidence of students, parents and major advisers during the multi-pass seat release process; and provide short-term financial incentives to encourage academic departments to err on the side of offering too many sections, rather than too few. The provost is resolved to make sure that students face no barriers, in the college of their major or in another college, on their path to the timely completion of their academic program.

Second, the campus will have to be more creative in its use of unconventional classroom space and use of conventional space at unconventional times. For example, it is possible that concentrated Monday through Wednesday use of a large hall normally dedicated to use for student activities will meet the needs of the freshman biological science sequence, thereby freeing space in the conventional large lecture halls for chemistry and mathematics. Third, the campus is also making more aggressive use of the summer quarter. Finally, in partnership with the Academic Senate, the Registrar is shortening classroom maintenance and equipment replacement cycles so that the larger rooms in particular will not only withstand heavier use, but continue to be inviting venues for faculty and students alike.

Case Study: Chemistry 2 Series

A persistent challenge for us has been chronic waitlists for the introductory chemistry series, CHE2 A, B and C. CHE2 is a very large enrollment course with both lecture and lab that primarily serves first year science students in all four colleges (COE, CBS, CAES and CLS). The course is a prerequisite for subsequent courses in all of the colleges; thus, having to defer the course for even one quarter results in a high level of student anxiety, and in some cases extends time-to-degree. In recent years, the situation has become increasingly problematic, as budget challenges exacerbated an already conservative allotment of resources to mount additional course sections. The increasing student numbers have exceeded capacity for the laboratory part of the course, and students from majors that do not require chemistry have enrolled in the course in increasing numbers.

In the past year, we have initiated a multifaceted approach to resolving this issue. It was determined that both physical plant issues (lab infrastructure capacity) and personnel issues (potential lab periods unused due to academic scheduling conflicts and staffing issues) were reducing course capacity. We took immediate steps, in cooperation with the Chemistry department and MPS deans' office, to remedy these issues. Our objective is to accommodate all students who need the course in coming quarters, and we have established a new standard operating approach that should prevent recurrence of the problem. We are now addressing remaining waitlist issues for required prerequisite courses through direct but collaborative interactions between the VPUE, college deans and department chairs.

Enforcing Prerequisites and Eliminating the Enrolled No Work Submitted [ENWS] Grade

The campus is taking other steps to improve enrollment problems, including encouraging the enforcement of prerequisites and eliminating the ENWS grade. Students who take a course without having the prerequisites can struggle academically; many who struggle opt to take an "F" so they can retake the course. This can cause a seat to be taken twice, adding to problems of impaction. Although waiving of a published course prerequisite is always the prerogative of the instructor of record, discussions have begun across the colleges to enforce course prerequisites systematically and with the aid of the Registrar. Currently, students are being asked to drop courses for which they have not met published prerequisites, and they may in fact be disenrolled by the instructor. For example, in Fall 2012 the College of Engineering sent an e-mail to all their undergraduates linking to current prerequisites and instructing students to ensure that they have successfully completed the published requirements. The Academic Senate and administration are committed to making it easier for departments to enforce prerequisites, if they choose.

The Enrolled-No Work Submitted (ENWS) grade designation posed similar enrollment challenges. To remedy the situation, in June 2012, the Davis Division of the Academic Senate approved an amendment to their Regulation A540, governing campus grading policies, which eliminated this

grade designation. Effective beginning in 2012-13, the amendment stipulates that students who submit no work subject to grading for a given course must be assigned a failing grade rather than the previously endorsed ENWS. The elimination of the ENWS designation was motivated primarily by concerns about protecting the integrity of Academic Senate grading policies. Approximately 900 students per quarter were receiving the ENWS designation rather than an evaluative letter grade. Many of those students' academic performances would more appropriately have been evaluated as either failing (F), in the case of those students who submitted no work but had no extenuating circumstances surrounding that failure; or as incomplete (I), the grade designation for those students who have been submitting course work earning a passing grade until some point at which extenuating circumstances render them unable to complete any remaining course work before the end of the academic quarter. Concurrent with the elimination of ENWS, a provision was added to Regulation A540 which allows students to petition the Grade Change Committee for removal of the grade in the very rare cases in which neither an "F" nor an "I" is appropriate, but in which failure to complete any course work is due to circumstances beyond the student's control. The elimination of ENWS also carries some implications for course availability and therefore time-to-degree. Because students can no longer count on an ENWS as a fail-safe mechanism, they must be more careful about enrolling in courses for which they are not likely to complete the work, and about adhering to drop deadlines—both of which leave some of those approximately 900 seats per quarter open to students more likely to complete the course satisfactorily.

STEM students, disciplinary balance, and the iAMSTEM HUB [CFRs 2.4, 2.10, 4.3, 4.4]

A key academic issue discussed in the 2020 Initiative is the balance between enrollment of students in the STEM disciplines and enrollment of students in the social sciences and humanities. Given the dramatic differences in the cost of hiring and providing research space for STEM faculty as opposed to other faculty, this balance has major impacts on financial sustainability. The Davis campus is relatively science-intensive compared to most of its sister campuses in the UC system, which presents specific budgetary challenges; alignment of the campus' research priorities with the resources available remains a critical issue. Addressing this challenge may be complicated if the academic preferences of the growing population of incoming national and international students is biased towards STEM disciplines.

Better understanding the circumstances that drive student attrition in STEM majors is one aspect of dealing with the disciplinary balance. The [interdisciplinary Agriculture Medicine Science Technology Engineering and Mathematics Hub](#) (iAMSTEM Hub), a university-wide STEM education effort, works across relevant disciplines to analyze and improve undergraduate STEM student success. Established by the provost in 2012, the iAMSTEM Hub has developed analytical tools that treat emerging and historical student data (dating back 12 years) in new ways, enabling a data-driven, student-centered approach to examining the causes of STEM attrition at UC Davis. In 2012, selected faculty members have taken the opportunity to use the preliminary data and analysis tools available through iAMSTEM. These tools will enhance the ability of faculty to assess courses and programs in meaningful ways.

Educational Technology [CFRs 3.7, 4.1, 4.2, 4.3]

UC Davis makes technological investments in teaching to enhance classroom pedagogy, enable faculty to experiment with multiple tools and approaches, and enhance students' ability to graduate in a timely manner, while extending teaching to learners beyond campus. Technology-aided teaching can be a powerful tool to improve pedagogy by sharing core texts, materials, and knowledge in an engaging, accessible way. It may also reduce time-to-degree by allowing students to complete units during summer (from home), by offering incoming transfer students from community colleges another mechanism to meet UC Davis transfer requirements, or by making available impacted gateway courses. It may even enable students to complete preparatory work in between admission and matriculation so that they are better able to succeed when they begin coursework.

UC Davis is committed to developing a comprehensive plan for online investments and a set of principles that will allow us to determine if those investments ultimately are successful. Our goal is to prioritize, in this process, the enhanced education of UC Davis students through innovative pedagogy, even as we identify multiple "student" beneficiaries on and off campus. The campus has recently identified a task force comprising faculty, staff, and administrators that will meet to determine strategic investments in online and hybrid education. Until such a process is complete, our faculty will continue to innovate using tools provided by campus and available beyond campus.

The campus has come a long way since the 2003 WASC report, which urged attention to academic technology. Every classroom now is equipped with a projector, and many of the larger classrooms feature the ability to podcast. We are also running various lecture capture pilots in the hopes of having a campuswide lecture-capture system some day in the future. Many instructors use an array of tools provided by our own campus course management system, SmartSite, that features an electronic grade book, communication and collaboration tools, quizzing, and other enhancements. SmartSite undergoes constant reviews and was most recently [upgraded](#) in June 2012. [Workshops](#) for faculty and staff are ongoing, and Academic Technology Services (ATS) maintains an instructional technology blog, [The Wheel](#), which provides a wealth of information and resources related to educational technology. Faculty are also starting to experiment with online educational tools such as Piazza and VoiceThread.

Online and Hybrid Courses; Participation in UCOE

The Academic Senate's Committee on Courses of Instruction (COCI), which is committed to ensuring academic integrity, has taken a leadership role within UC to establish expedited methods of reviewing and approving courses taught with new pedagogies. This review, which is as rigorous as that imposed on other courses at UC Davis, allows the campus to continue to build infrastructure through hybrid course experiments and their assessment, such as the newly approved ENG 045Y, a hybrid Properties of Materials course just approved to be taught Summer 2013. COCI has given attention to options for proctoring examinations of online courses and [recently changed its policy](#) to allow students in online courses to take exams in proctored settings off campus, which has allowed some online UC Davis courses to be designated as systemwide courses.

Five UC Davis faculty are among the first cohort, systemwide, to create online courses through

University of California Online Education (UCOE), with the goal of offering these courses to UC Davis and UC students for credit. Thus far, three of these courses have been approved for instruction at a systemwide level, and are to be offered multiple times throughout the academic year. One of our primary reasons for participation in the system's UCOE initiative is to offer our students additional options, especially in high demand areas. This is one way we will improve our students' time-to-degree.

Support for Hybrid Course Development

Many faculty blend in-class teaching with online instruction for distant participants (hybrid classes), and are often supported by campus awards, such as the [Provost Hybrid Course Award](#) (PHCA), which allow faculty to experiment with new pedagogies and assess what works to improve student learning. The PHCA provides funding for faculty to reimagine their current face-to-face course offerings as hybrid courses, utilizing video, interactive content, web 2.0 tools, and other "flipped classroom" techniques. ATS and the Center for Excellence in Teaching and Learning (CETL) offer a wide variety of faculty training and support programs, often collaboratively, to advance the use of online technology in teaching. Among these offerings is an eight-week seminar "Designing Hybrid Courses." ATS and UC Davis Extension have production and design resources used to develop video and media for online courses. In 2011, ATS hired an instructional designer devoted full-time to development of online and hybrid courses. In follow-up to the PHCA, CETL hosted an [Online and Hybrid Learning Showcase](#) in October 2012, which featured online and hybrid courses taught or being developed for the first time during 2011-12. [Videos](#) of the presentations are available online. CETL's workshop series on [Designing Courses for Hybrid Delivery](#), open to all faculty, addresses topics specific to hybrid delivery including adapting or creating content, assessing learning, academic integrity, quality assurance, and interaction. Development of hybrid courses extends well beyond those supported by the PHCA. [Discussing Online Learning and Collaborative Education](#) (DOLCE) sponsored by ATS meets monthly to engage faculty and staff in a discussion of online and collaborative teaching and learning strategies. At least one faculty member presents on an innovative teaching method, and ATS staff answer questions. Minutes and video recordings of each meeting are posted online.

MOOCs and E-Textbooks

Massive Open Online Courses (MOOCs) have been very much in the news over the past year following Stanford's experiment opening three computer science courses to outside enrollment, which resulted in each course enrolling over 100,000 students. The provost invited a small group to begin inquiry into the question of whether UC Davis should experiment in this area. As part of their work, this group met with Sebastian Thrun, founder of Udacity and former Computer Science professor at Stanford, and also with Daphne Koller, co-founder of Coursera and Computer Science professor at Stanford. In addition, Koller made a presentation at UC Davis this past December that drew more than 100 faculty and staff. A few UC Davis faculty have begun working with MOOCs. John Owens, Associate Professor in Electrical and Computer Engineering, launched a MOOC through [Udacity](#). At the time of this report, the course is newly launched, and has over 15,000 students enrolled. Dr. Owens wrote a well-received [blog post](#) on preparing the course that was highlighted on the front page of [Medium](#), a popular online publishing and idea-sharing site. Arnold Bloom, Professor in Plant Science, has created a [self-paced MOOC on Global Climate Change](#) based on

the course he produced for UC Online.

UC Davis faculty are also exploring the creation and use of online textbooks. The Electrical and Computer Engineering (ECE) Graduate Seminar hosted Smita Baksh,ⁱ the CEO of online textbook company [Zyante](#) in December, 2012. The presentation discussed how interactive electronic textbooks can enhance interactive hybrid instruction and supersede the use of traditional texts in conventional deliveries. Computer Science faculty are early adopters to test interactive electronic textbooks in lower division classes. Faculty in ECE are collaborating to create online textbooks for gateway courses.

Online education can be used to achieve a wide range of objectives including increasing access, reducing the cost of education, and generating new revenue. While these goals are laudable, at UC Davis they remain secondary to the goals of improving teaching and student success. As UC Davis considers more online and hybrid teaching models, we will not lose sight of the essential teaching/learning partnership in higher education and the value of the small classroom environment.

Summer Sessions: Technology Enhanced Summer Classes

Summer Sessions has provided resources to increase the use of technology in the classroom to expand access of summer courses to students and improve student success. In Summer 2012, Summer Sessions collaborated with the Department of Nutrition, ATS, and CETL to offer lectures via video lecture capture in NUT 10 (Concepts and Discoveries in Nutrition), one of the largest enrollment classes at UC Davis, reaching roughly 2000 students each academic year. Students had the choice to take the class fully face-to-face, as it has been offered for years, or to take part of the class virtually. Student satisfaction was high for both groups. Comments from the student survey and the student focus groups suggest that a main benefit of the two-option approach to NUT 10 lies in the flexibility that allows students to choose the learning setting in which they are most likely to succeed. Summer Sessions also collaborated with the Department of Chemical Engineering and Materials Science (CHMS), and UC Davis Extension to develop a hybrid version of ENG 45 (Properties of Materials), a course required for several Engineering undergraduate degrees. The Summer 2013 course will offer the lecture component online with students returning to campus to take the laboratory component. CETL plans to track and compare teaching and learning data.

Ensuring Educational Effectiveness [CFRs 2.3, 2.4, 2.7, 3.3, 4.4, 4.5, 4.6]

UC Davis has longstanding practices of evaluating educational effectiveness through faculty merit and promotion cycles and formal undergraduate and graduate program review.

Merit Promotion Cycles

Each merit cycle (which occurs in most cases within three years or less) considers evidence of teaching effectiveness in deciding whether individual faculty are promoted in rank. In addition to the department-wide merit reviews, department chairs are expected to review student evaluations quarterly with their faculty. Faculty frequently receive feedback from colleagues on how to approach material and develop effective teaching styles. The CETL, which offers one-on-one mentorship,

video-taped teaching observations and analysis, and ongoing teaching effectiveness workshops, is an important resource (see [Ex. 30](#)).

Strengthening Program Review

In Essay 1, we described a number of systems and procedures in place which support the effectiveness of our academic programs. Among these, undergraduate and graduate program review are longstanding, clearly defined campuswide processes governed by the Academic Senate (discussed further in the Integrative Essay). These processes are periodically reviewed for improvement.

Undergraduate Instructional Program Review (UIPR)

The UIPR process was revised in 2004 to include a section on the program's alignment with the campus educational objectives. The UGC is currently considering the best way to incorporate assessment of program learning outcomes (PLOs) – which have now been developed for [100% of programs](#) – into the program review process.

In recent years the Academic Senate has taken steps to ensure all undergraduate programs are on a standard seven-year review cycle and graduate programs are reviewed close to a seven year average. Beginning with our next review cluster, this spring, we are at this seven-year point without backlog. This represents a significant improvement over review intervals that reached to ten years and beyond in the past. This new timely process ensures that every seven years each undergraduate and graduate program undergoes a process of self-study, external evaluation, and senate and administrative review. Here student evaluations and interviews are crucial in determining the quality of courses and the appropriateness of resources for the teaching mission. The addition of external reviewers to undergraduate program review, currently being tested by two programs undergoing expedited review, will further strengthen the input program review provides on student learning. Lastly, UIPR is studying ways to reinforce “closing the loop” on recommendations.

Graduate Program Review

Graduate Council coordinates the program review of graduate programs. The graduate program review process is regularly reviewed and modified to enhance its efficiency and efficacy.

Effectively communicated and easily available degree requirements aid students in understanding the learning objectives for their programs and aid faculty in ongoing assessment of educational effectiveness at the Graduate Council and program levels. Although degree requirements are reviewed routinely as part of graduate program review by program faculty and Graduate Council, in the past few years Graduate Council determined that a campuswide updating and standardization was desirable. Over the past six years, all graduate programs were asked to review their degree requirements, revise them if desired, and prepare them in a standardized format for Graduate Council's review and approval. In cooperation with the Office of Graduate Studies, these degree requirements were then made available on the Graduate Studies website for all academic graduate programs.

The Graduate program review process includes review of program bylaws. Graduate program bylaws (published under each [graduate program of study](#)) are a means of articulating faculty responsibilities for student learning outcomes and educational effectiveness. Developing and reviewing bylaws provides graduate programs with an opportunity to self-evaluate their expectations and success at meeting these expectations, as well as defining these expectations for students and for faculty outside the program who contribute to the review process. Bylaws specify criteria for membership in the graduate program and articulate requirements for continued membership. Essentially, members are expected to contribute to educational effectiveness by facilitating students' achievement of program learning objectives through delivering the classroom curriculum, advising theses and dissertations, serving on qualifying and comprehensive examination committees, and other activities identified by programs. Programs are expected to periodically review their members and take corrective action in the event that a faculty member does not meet the requirements for continued membership.

Establishment of the Office of Academic Assessment [CFRs 3.1, 3.4, 4.5]

In 2012, UC Davis created the Office of Academic Assessment (OAA). In the seven months since its establishment, the OAA staff has provided essential support to the WASC reaccreditation effort, particularly in collecting required and supplemental report evidence. To familiarize campus leadership with the office's resources, the director made several presentations to academic senate committees and deans' offices, and worked with several programs revising or establishing program learning outcomes (PLOs). In addition, the OAA has fielded additional requests from numerous programs inquiring about PLOs and assessment plans. Staff members have also collaborated with the CETL, providing a session on formative assessment in the graduate teaching assistant orientation and a workshop on formative assessment for Geology graduate students. As a result of coordination provided by the OAA, an informal cross-campus working group on assessment now meets monthly to share available assessment data and tools. Due in part to the creation of the new OAA, UC Davis has reached several important milestones that point to the continued development of a student-centered approach to improved teaching and learning (see [Ex. 24](#)).

Undergraduate Instructional Improvement Plan (UIIP) Grants [CFRs 2.4, 3.4, 4.6, 4.7, 4.8]

UIIP grants support strategic campus needs by funding [developments in educational effectiveness](#), including redeveloping courses with an active learning component; and developing student learning outcomes and assessment plans for courses, curricula, and majors. (See [Ex. 31](#) for a list of past grants and examples of UIIP impact reports from grant recipients.) Assessment also takes place as a result of UIIP grants.

Case Study: Modeling Educational Effectiveness

While campuswide developments toward educational effectiveness are taking place, advances are also occurring at the program level. New programs are uniquely positioned to leverage new technologies and build current best practices into their plans “from the ground up.” One of UC Davis’s newest undergraduate majors, [Sustainable Agriculture and Food Systems](#) (SAFS) admitted its first students in 2011. SAFS models a program in which current instructional design practices are implemented at its foundation. [Program learning outcomes](#) underlie a curriculum designed to help students gain a diversity of knowledge, skills and experiences using traditional and nontraditional teaching methods, including hands-on experiential learning techniques. A strong student internship program supports full attainment of the learning outcomes. A competency-based portfolio course and a capstone course with self-assessment on the development of competencies were created with support from a UIIP grant (See [Ex. 51](#).) The electronic portfolio system to be launched in March 2013 will allow students to customize learning goals from within the larger curricular framework, integrate continuing peer and faculty feedback about their progress toward achieving those goals, and manage the attainment of competencies across their coursework.

The SAFS program was selected in a competition for the development of digital “open badges” sponsored by Mozilla and the John D. and Catherine T. MacArthur Foundation, and highlighted in an [article in the Chronicle of Higher Education](#). Badges are described by the MacArthur Foundation as “validated indicators of accomplishment, skill, quality, or interest.” The badge system is based on the SAFS program’s core competencies, and is designed to organize evidence of both formal and informal learning from within traditional higher education and without. SAFS is just one of many campus programs improving instruction through innovative means.

The sections above have discussed the various ways UC Davis is planning to meet the financial challenges facing public universities; to meet the increased demand for access to post-secondary education; to meet the demands for accountability regarding student learning; and to incorporate new technology and new approaches to teaching and learning. The following essay focuses on the campus priorities that have emerged as a result of this report.

Integrative Essay

Preparing these essays for the WASC reaccreditation process has given us an opportunity to reflect as a group on our university's strengths, accomplishments, and goals. As a result, the following priorities have emerged: the improvement of advising; the integration of graduate education into campus academic and strategic planning; and continued improvements in assessment of undergraduate education. These priorities, our current challenges in these areas, and our plans for the future are enumerated below.

Undergraduate Advising

Improve the advising that undergraduate students receive [CFRs 2.12, 4.3, 4.6]

Undergraduate students at UC Davis should receive strategic advising from faculty on career choices as well as benefit from transactional advising from professional staff advisers who work in tandem across units.

A major university with a huge range of opportunities can present a challenging landscape of academic options to undergraduates, especially those not certain of their objectives or of the consequences of decisions. To most fully benefit from their time on the campus and to reach their full potential, many students will benefit from access to both strategic and transactional advising on key decisions.

With their knowledge and experience, faculty are well prepared to provide advice on strategic decisions related to career goals, choice of major, relative importance of courses, and interpretation of prerequisites. Strategic advising by faculty benefits students who have not yet settled on a major, and in the current system those students are not likely to be referred to a faculty adviser. For students in a particular course, especially those near the top and bottom of the achievement spectrum, the faculty instructor can offer the most authoritative advice on options for extra academic enrichment and how best to recover from initial stumbles. Faculty are widely available for informal advising, however faculty participation in advising is not encouraged across all sectors of the campus and so students' access to faculty advisers, especially at crucial early stages in their academic experience, is uneven.

We currently have staff advisers located within departments, within the college deans' offices, within Student Affairs offices and in on-campus housing for first-year students. This structure presents opportunities and challenges for students. They benefit from having easy access to a wide range of individuals. Yet the students can receive inconsistent advice across the spectrum of advisers, and sometimes have difficulty determining which of these individuals is most crucial when they are in academic difficulty. Professional staff advising services will need to be provided such that it is clear to students where they should seek academic advising, primarily given in deans' offices and departments, and psychological advising to meet their special needs. Even in the case of academic advising, there must be a clear distinction between the type of academic advising that can occur at the deans' offices and at the departments/program level, and this requires a better understanding

between these units. Current advising staff numbers are relatively small in comparison to student numbers; hence, the staff advisers strive to meet the needs of students in academic difficulty and cannot devote much time to the creation and implementation of proactive advising. For example, in the College of Agricultural and Environmental Sciences (CAES), there is one academic adviser to 1,380 students and at the department level, the ratio is about one academic adviser to 600 students. Career level academic advising (from majors or colleges) is absent in the residence halls. The primary advising in the halls is delivered by peer (student) advisers trained by staff advisers. Peer advising cannot be a substitute for quality academic advising from staff and faculty; it can only supplement to quality advising at the other levels.

The training, position descriptions, professional development and supervision of these many different kinds of “advisers” is not consistent, which in turn contributes to the variation in the advice provided to students. In a recent University of California Undergraduate Experience Survey (UCUES), our students reported that they are “satisfied” to “very satisfied” with the advising they receive. Although this result compares favorably with our sister campuses, our faculty and the administration agree we can do better. An internal survey (see [Ex. 52](#)) of undergraduate academic advisers reveals that in our academic units, advisers continue to have difficulty serving all students in a timely manner; they have insufficient access to continual training; and they report technology limitations that hamper their ability to work with students effectively. Not all advisers have the same advanced technological systems providing access to student records, online forms, and online scheduling. Our highly decentralized system leaves adviser training and resourcing uneven, and constrains our ability to work effectively with students across all colleges, and as they move from one major to another. Excellent advising benefits the campus at large as it invests in the education of its young people to produce the greatest benefit to both them individually and the larger society.

We have launched a number of steps to provide high quality academic advising accessible to all students.

Improvements at the central level: A large portion of our students know what they want to achieve, and need practical recommendations about which courses they need to take next quarter etc. so they can graduate in time. For the majority of such students, these needs could be met by a reliable, directly accessible web-based software application. By Fall 2013, UC Davis will have a virtual portal designed specifically for students to deal with advising in a more holistic and comprehensive manner. This virtual student portal, coordinated by the Registrar, will allow students to register for courses, look at their financial aid, pay their bills, track their progress to degree with academic advising tools, file for commencement and graduation, and connect with many of the student life activities such as internships, student clubs, and cultural events. With over fifteen units on campus participating, the portal also will provide a wealth of information in a central location. Students will be able to pose questions, and receive answers, using a knowledge-base query system developed to directly address 80% of inquiries. Another 15% of student questions will be asked and answered through the portal by internal routing of questions to the right unit on campus, which then provides an answer electronically. We anticipate that 5% will remain more complicated cases, requiring in-person appointments. With the release of this tool, UC Davis will be among the first universities in the country to integrate an online academic advising, registration, financial aid, student accounting,

student life, and electronic question-contact tools.

Improvements at the College and Department level: i) Last year, the provost's Allocation funded the College of Agricultural and Environmental Sciences (CAES) to launch a pilot to determine whether a model that created a centralized pool of trained peer advisers would be useful to expand academic advising, standardize services provided by peer advisers (students) and increase the quality of peer advising. Academic counselors in the Dean's Office collaborated with faculty master advisers and departmental staff advisers in selecting peer advisers. These students participated in a class offered by Student Housing Services for peer advisers on the Residence Hall Advising Team (RHAT) and orientation leaders. They then worked in rotation between the departmental majors, RHAT in the residence halls and the Dean's Office. The CAES Dean's Office took responsibility for oversight, hiring and quality control. CAES recently surveyed the departmental majors participating in the pilot and found a high level of satisfaction in the pilot. Consequently, CAES will expand the pilot to include more majors in the next academic year. ii) An online Student Advising Portal (SAP) (discussed briefly in Essay 3) has been developed by the CLS for use by advisers. In its initial version, the SAP was primarily focused on streamlining processes and information management for advisers, and integrated access to current official student records. The second phase, in development now, will improve the tools for advisers but also extend access to students, so that they can review their own information and examine their degree progress. iii) The College of Biological Sciences is launching, this year, their Biology Academic Success Center (see [Ex. 41](#)), which will consolidate all services into a single site and expand the range of services for faculty interaction, career guidance, and support networks. This will dramatically improve student access to information across the college's five departments and nine majors, create a single place for information with common hours of operation, and enhance information sharing among the college's advising staff.

Undergraduate mandatory academic advising: Mandatory advising is already occurring in the College of Engineering³ and would be desirable in all colleges, although resource constraints make such an expansion challenging. This fall, the College of Biological Science piloted mandatory advising for their freshmen. The advisers met with about three hundred students to talk about topics such as how to succeed in class, time commitments and time management for serious academics, and how to read a syllabus. The academic success of this student cohort will be monitored.

Incentives will be needed to encourage involvement of faculty in student advising. The role of faculty advising should not duplicate but complement that of the trained advisers, who have specific expertise in identifying student needs and the resources available on the campus to meet those needs. While it is recognized that advising by faculty greatly benefits students who have not yet settled on a major, in the current system those students are not likely to be referred to a faculty adviser; moreover, such advising by faculty is time-consuming and at present given very limited consideration

³ Advising is mandatory for all College of Engineering students. Once a year, registration holds are placed on students, who must then meet with their departmental staff adviser for an advising session to have the hold removed. Departments in the college require varying procedures to remove the hold but all require that an academic plan be completed and signed by the departmental staff adviser and/or a faculty adviser. Students who do not clear their advising hold are unable to make changes to current registration or register for future quarters.

in the faculty merit and promotion process. The Academic Senate will have to play a more active role in defining, promoting and acknowledging the value of faculty undergraduate advising.

Long term strategy: In January 2013 the Vice Chancellor for Student Affairs launched the Blue Ribbon Committee for Enhancing the Undergraduate Student Experience that includes a focus on Academic Advising. The group's objective is to define, within the next five months, a long-term strategy for improvement of academic advising on the campus. One project already launched is to assess and enhance training across campus staff advisers, with the objective of developing a shared sense of collaboration as advisers better understand their part of the total advising project, and how they contribute to an effective whole. More consistent and broader training needs to occur for most advisers, some of whom have never had formal training in such areas as how to appropriately engage students. The intent is to map the staff advisers across functional areas and different reporting lines, and identify the advisers who are most qualified to address different components of student advising. With such an "advising map" in place, an approach can be implemented to most efficiently and sensibly provide students with high quality, proactive advising appropriate to their situation.

Graduate Education and Planning

Increase integration of graduate education into campus academic and strategic planning [CFRs 1.2, 2.1, 2.4, 2.5, 2.6, 4.1, 4.3, 4.4, 4.6, 4.7, 4.8]

Graduate education is a core part of UC Davis's mission as a public research university. Our graduate students contribute to the research and teaching missions of the university in many ways. However, recent campus planning efforts have been uneven in terms of addressing graduate education. Most notably, the Joint Report of the 2020 Task Forces report excluded graduate students from its discussion of future enrollment scenarios or examine graduate education explicitly. While there was a separate task force addressing graduate education, the separateness of the exercises illustrates the problem. Successful graduate education is characterized by its linkages with research and undergraduate education. Campus planning must recognize these linkages and set goals that strengthen them, by addressing the campus as an integrated body.

Over the past two years, total graduate enrollment has been consistent at 6,545 students in Fall 2010 and 6,537 in Fall 2012. At the same time, undergraduate enrollment has increased from 24,560 to 25,608. As a consequence, the proportion of graduate and professional students to undergraduates has declined from 1:3.75 to 1:3.92 in a two-year period without any structured consideration of possible implications for the institution. Planning for future enrollments should encompass academic graduate and professional student enrollments as well as undergraduate enrollments. Integrated planning across all student types is necessary to maintain an appropriate balance in the campus's ability to serve the educational needs of all student populations.

Finally, as discussed in the report of the Joint Administration/Academic Senate Task Force on Graduate Education at UC Davis and in the recent report "[Pathways Through Graduate School and Into Careers](#)," there is a national need for institutions to focus more attention on preparing academic graduate students, particularly doctoral students, for jobs outside of academia. These students are the

next generation of knowledge creators. Effective graduate education must develop their ability to innovate so that they can create knowledge independent of their future occupational setting. While campus efforts in this area have been initiated, as discussed in Essay 3, there is room to increase these efforts and to experiment with innovations in delivering this type of advising and mentoring.

The administration and faculty have recognized the need to improve in this area and initiated steps to promote improvement. In 2011-12 the provost, in partnership with the chair and Executive Committee of the Academic Senate, created a [Special Task Force on Graduate Education at UC Davis](#). In Fall 2012, the Task Force [report](#) was made available and distributed to the campus for comment by mid-Winter. The overarching recommendation of the Task Force is that “In order to achieve this vision of the task force, UC Davis must strengthen graduate education and make it a priority. Graduate education should be integral to UC Davis’s strategic planning, resource allocation, and faculty development.” Three other reports were prepared and released more or less concurrently with that of the graduate education task force: the [Joint Report of the 2020 Task Forces](#), the [International Advisory Committee Report](#), and the [Self-supporting Degree Program Task Force report](#). The input received is being reviewed by the provost and Academic Senate. An Implementation Advisory Committee will be appointed no later than Spring 2013 and will be charged with positioning graduate education higher among campus priorities; the committee will provide advice for implementing the recommendations of the task force and those made in other reports relevant to graduate education over the next several academic years. As discussed in Essay 1, the ongoing assessment of the educational effectiveness of graduate programs is a core responsibility of the Academic Senate, and is undertaken through a rigorous program review process. Greater integration of graduate education into campus planning should not reduce the centrality of academic quality and student outcomes for educational effectiveness. The Implementation Advisory Committee’s role will be to identify actions that can meet that criterion. The challenge is to embed the prioritization of graduate education to a similar degree in all aspects of campus planning while maintaining the culture of academic assessment that is a current strength.

Undergraduate Educational Assessment

Continue to improve our current process of undergraduate educational assessment [CFRs 2.3, 2.4, 2.7, 2.10, 4.4-4.8]

Effective assessment of undergraduate education requires leadership by the Academic Senate. Methodology and implementation will require a partnership between the Academic Senate and the Vice Provost for Undergraduate Education and recognition of the time required by department faculty and staff, as well as a commitment from the administration to provide adequate resources, including the expertise of the Office of Academic Assessment.

Program review has long been an important site of ongoing evaluation of student learning. The Undergraduate Council (UGC) and Council of Deans and Vice Chancellors have jointly declared that learning assessment methods will be developed consistent with the AAHE “Principles of Good Practice for Assessing Student Learning,” and Graduate Council affirmed that its program review practices and [objectives for graduate education](#) are consistent with these principles.

In recent years the Academic Senate, with support of the administration, has moved all undergraduate program reviews onto a standard seven-year cycle, a system further strengthened by the fact that reviews are performed in clusters grouped by common disciplines. However, undergraduate program reviews could be more effective to the degree that they are coordinated with ongoing administrative assessments of units, the availability and distribution of resources, and the establishment of benchmarks by which resources are provided. At present there are too many layers of bureaucracy through which the reports move prior to reaching Undergraduate Instruction Program Review and the UGC. Meaningful feedback does not effectively flow back to the programs after the review is completed and recommendations have been developed, while the lack of coordination with administrative oversight functions compromises the possibility that reviews inform resource allocation decisions. Finally, it is imperative that more faculty see the value in the undergraduate program review process; in the absence of notable impact, faculty are reluctant to contribute in a meaningful way to program review.

In Fall 2012, the Academic Senate Executive Council charged UGC to review their criteria for evaluating educational effectiveness and make modifications to the ongoing program review process to assess how effectively student learning outcomes are achieved. These efforts are initiated by the Academic Senate with the assumption that the campus administration will be able to commit to creating a supportive environment that includes adequate resources for departments, programs and the Academic Senate to implement learning outcomes assessment for the campus. The UGC has launched two efforts to establish campuswide standards for student learning outcomes assessment. First, steps have been taken to initiate learning outcomes assessment at the program level in a manner that respects the maximum autonomy of departments and programs (see [Ex. 26](#)). Even so, programs will be required to develop their plans consistent with AAHE guidelines on outcomes assessment. Programs will report to the Academic Senate on their outcomes assessment planning by Fall 2013. In 2010-11, the efforts initiated by the GE subcommittee of UGC to develop initial testing of procedures for GE assessment was limited by a lack of resources. This year, the UGC has approved a resolution which formalizes the assessment of campuswide GE requirements by integrating the assessment at both the program level and campus level. The approach complements program review, as much as possible using similar methods and overall goals. To facilitate this similarity, campus programs are encouraged to consider aligning program learning outcomes with the GE requirements. The UGC resolution contains a broad timetable to evaluate each of the eight literacies that make up GE. It also establishes mechanisms whereby samples of student work will be included in the assessment. In the near future, the UGC will present a proposal for streamlining program and learning assessment to the Academic Senate Executive Council; one component of this proposal will be how GE will be assessed. Once Executive Council adopts the plan, the Academic Senate and Administration will begin to discuss the resources necessary for the implementation of such a plan.

Currently, the Senate is conducting a pilot with external reviewers for undergraduate program review to inform decisions about how the regular program review could be improved. External reviewers may become standard practice in the future if resourced sufficiently.

The provost and the chair of the Academic Senate have agreed upon a new method of ensuring that program review recommendations will reach those able to provide resources and change practices,

with accountability directly to the provost and Academic Senate. Responses to recommendations made to program faculty will come directly to the Academic Senate. The provost will coordinate responses from deans and higher-level administrators, and provide those responses to the Academic Senate, so that administrators will be accountable to both the provost and the Academic Senate. A mechanism is needed to close the loop between undergraduate program review findings, administrative recommendations, and ultimate program change. Here the Graduate Council's Program Review Closure Committee (PRCC) may be a useful model for UGC, as it fulfills precisely that function for graduate program reviews. The PRCC of Graduate Council is a subgroup of faculty specifically charged to review with care responses to recommendations, clarify any outstanding issues, and then make a recommendation for action to Graduate Council. In the event that there remain concerns about a response, Council can exercise an option to bring in the provost, Deans or Program Chair for an explanation to Council.

Further steps have also been taken, in the midst of this report-writing process, to enable the new OAA to serve as a resource for faculty and departments who seek strategies for using direct evidence in evaluating student learning. This includes a new pilot for the assessment of undergraduate student work to be facilitated by the OAA and the Academic Senate. This will enable the OAA staff to continue, with Senate partnership, regularly supporting faculty in a faculty-led process of assessing student learning.

As indicated in this concluding essay, continued attention to advising, graduate education, and assessment is among the campus's top priorities. While participation in the first WASC pilot of the new review process has been a true challenge given the short timeframe, it has helped to focus our ongoing discussions about maintaining institutional standards of excellence in these and other areas. The campus has welcomed the opportunity to explain the meaning of our degrees, how well our students are learning, and how our institution can more effectively meet student needs. We appreciate the time and effort that reviewers have taken to read this far, and we look forward to responding to further inquiries in the offsite review and especially to demonstrating our progress at the Spring 2014 onsite review.

Acronyms Used in Report

Academic Technology Services (ATS)
 Budget & Institutional Analysis (BIA)
 Campus Judicial Board (CJB)
 Campus Recreation and Unions (CRU)
 Center for Excellence in Teaching and Learning (CETL)
 Center for Leadership Learning (CLL)
 Center for Student Involvement (CSI)
 College of Agricultural and Environmental Sciences (CAES)
 College of Biological Science (CBS)
 College of Engineering (CoE)
 College of Letters and Science (CLS)
 Committee on Academic Personnel (CAP)
 Committee on Courses of Instruction (COCI)
 Community Advising Network (CAN)
 Coordinating Council of Graduate Affairs (CCGA)
 Council of Deans and Vice-Chancellors (CoDVC)
 Counseling and Psychological Services (CAPS)
 Educational Opportunity Program (EOP)
 Educational Policy Committee (EPC)
 Enrolled-No Work Submitted (ENWS)
 Entry Level Writing Requirement (ELWR)
 Faculty Executive Committees (FECs)
 Graduate Council Courses Subcommittee (GCCS)
 Graduate Council's Program Review Closure Committee (PRCC)
 Graduate Student Association (GSA)
 Graduate Students Researchers (GSRs)
 Internship and Career Center (ICC)
 Office of Campus Community Relations (OCCR)
 Program Review Closure Committee (PRCC)
 Provost Hybrid Course Award (PHCA)
 Residence Hall Advising Team (RHAT)
 Special Transitional Enrichment Program (STEP)
 Student Academic Success Center (SASC)
 Student Community Center (SCC),
 Student Evaluations of Teaching (SET)
 Student Judicial Affairs (SJA)
 Undergraduate Instruction and Program Review (UIPR)
 Undergraduate Research Center (URC)
 University of California Online Education (UCOE)
 University of California Undergraduate Experience Survey (UCUES)
 University Writing Program (UWP)
 Week of Orientation and Welcome (WOW)

Figures

Figure 1: Cumulative Growth in Student Population (1998-2011)

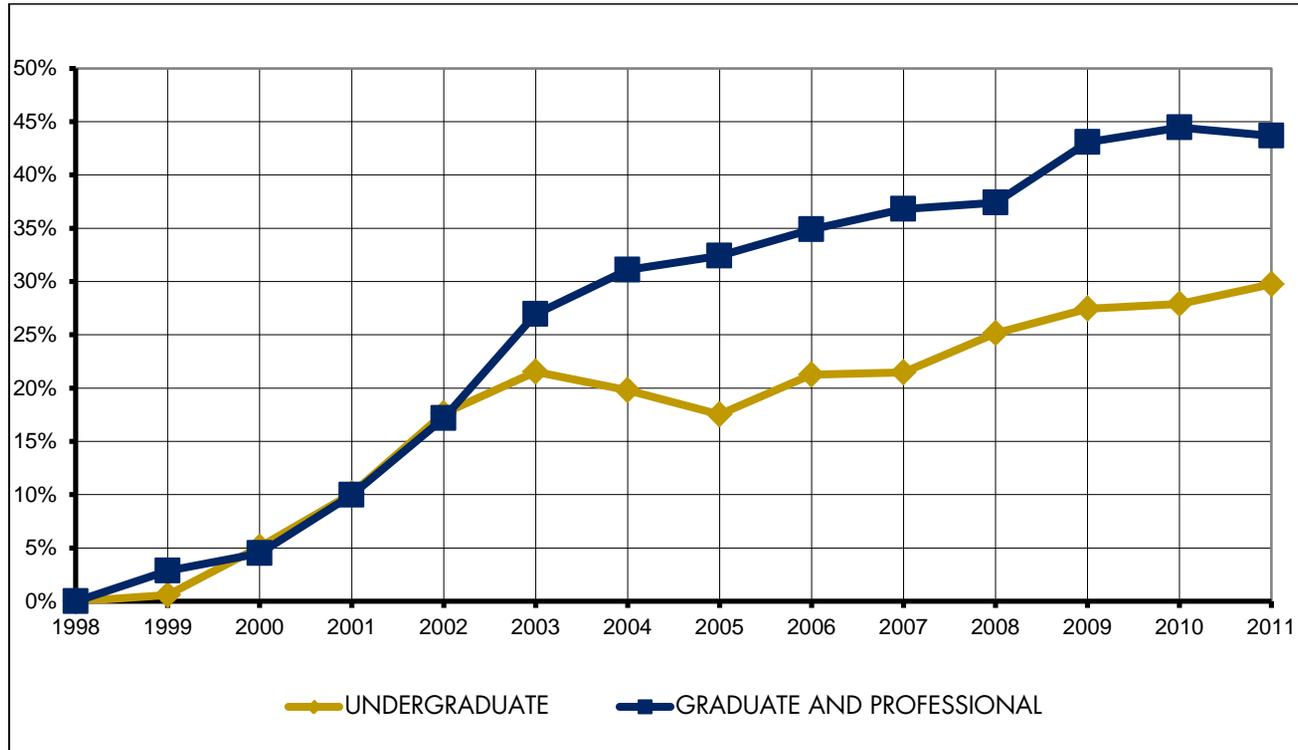


Figure 2: Percentage of Underrepresented Minority Admissions

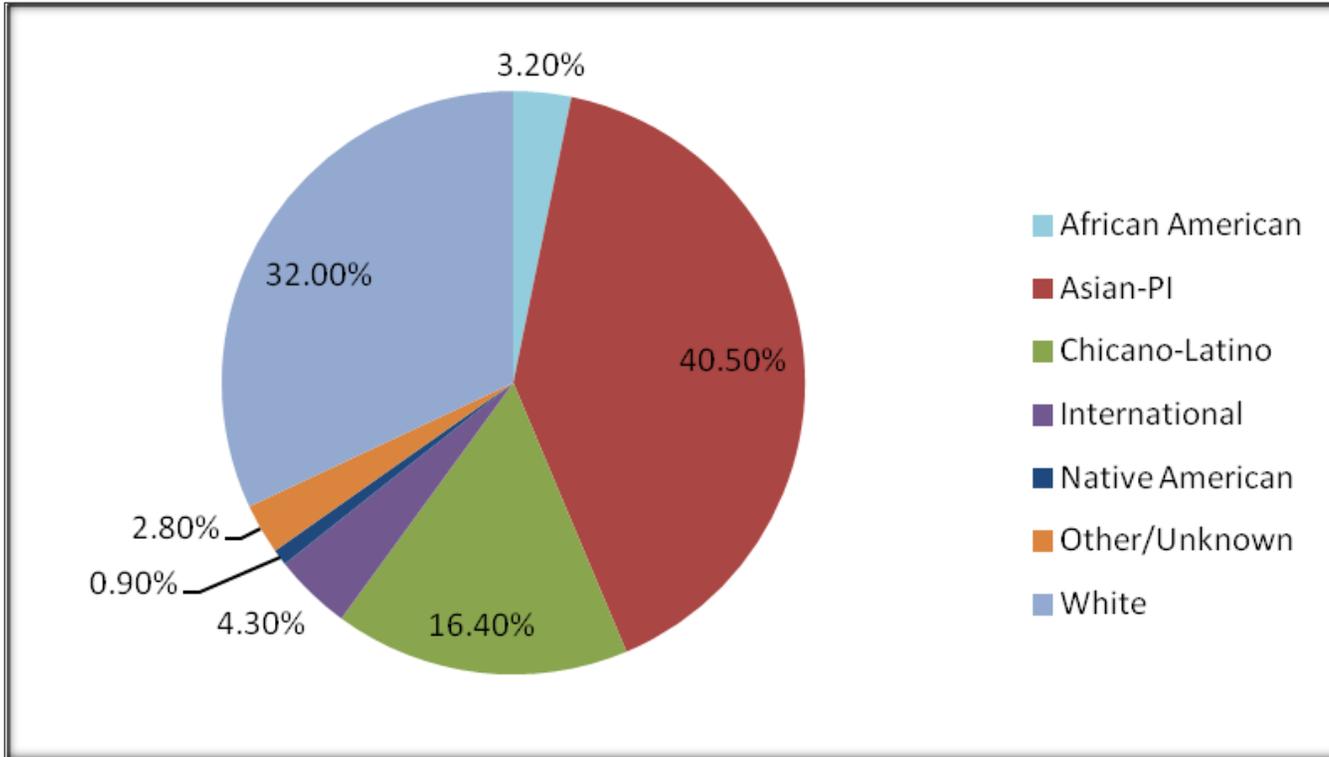


Figure 3: Percentage of Underrepresented Minorities in Graduate Student Population

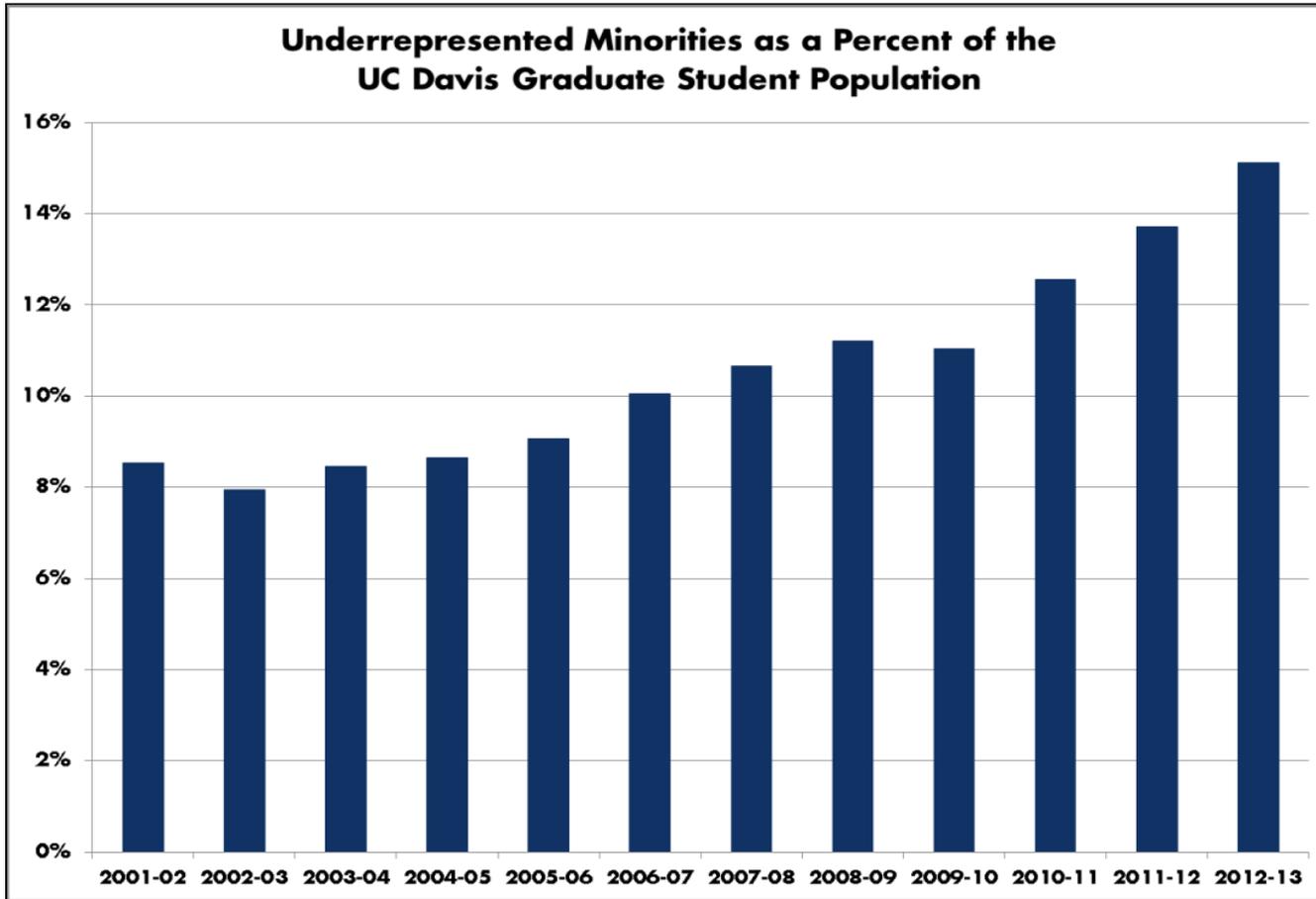


Figure 4: Graduate Acceptance and Matriculation Rates

