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 lead-ership 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 <u>California Master Plan</u> <u>for Higher Education</u>, and strive to educate as many qualified California students as we can within the constraints of our budget and our <u>UC Davis: A Vision of Excellence</u>. Approximately 73% of undergraduates and 94% of graduate and professional students receive some form of support (see <u>Ex. 2.4</u>). 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 <u>University of California Diversity Statement</u> acknowledges the acute need to remove barriers to the recruitment and retention of

underrepresented minority (URM) student populations; the percentage of URM admissions (see <u>Figure 2</u>) has risen steadily in recent years. Our recently adopted holistic review process for undergraduate applications defines merit using <u>multiple measures</u> 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 <u>Academic Senate</u>, 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 <u>Undergraduate Education</u>, <u>Graduate Studies</u>, and <u>Student Affairs</u> 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 <u>Division of Student Affairs</u> 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, <u>Student Housing</u>, <u>Campus Recreation</u>, Student Life, Campus Community, and Retention services (see the division's <u>Organizational Chart</u>).

In collaboration with <u>Budget and Institutional Analysis</u>, Student Affairs regularly surveys the effectiveness of its programs, services and facilities, and the "student experience." <u>Student Research & Information</u> 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 <u>2008 Student Transition and Retention (STAR) report</u>, 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 <u>ACT retention studies</u>: mandated <u>writing, math and chemistry course</u> <u>placement tests</u>, small-enrollment <u>First Year Seminars</u>, some with an "Introduction to the University" component, and a comprehensive learning assistance center, the <u>Student Academic Success Center</u> (SASC), which offers a variety of programs including <u>tutoring</u> and advising interventions with selected student populations. For example, UC Davis is the only California university in the top 25 that is <u>rated "stellar" by U.S. News & World Report</u> 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 <u>Graduate Council Mentoring Guidelines</u>

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 <u>Decision Day</u>. Most incoming students (98% of freshmen and 88% of entering transfers in

2012) attend a 2 ½ day (freshmen), or one day (transfer) <u>Orientation</u> 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. <u>Campus Recreation and Unions</u> 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 (<u>Ex. 41</u>). 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 <u>Undergraduate Education</u> provide advising related to undergraduate research, honors programs, leadership and professional development (including opportunities in Washington D.C.); <u>University Outreach and International Programs</u> oversees advising related to participation in study abroad. Within <u>Student Affairs</u>, advising is offered by several units to address new student orientation and academic advising for first-year and transfer students (elaborated upon below); preprofessional/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 <u>Career</u>

<u>Discovery Group Program</u>, 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 <u>Residence Hall Advising Team (RHAT)</u> 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 <u>Residence Halls</u> 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 (<u>Ex. 42</u>, pp. 7-8).

Residence Hall life helps freshmen to succeed by offering extensive, coordinated <u>academic support services and resources</u>. Each of the <u>residence areas</u> 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 <u>Residence Hall Programs</u>. The <u>Residential Education Office</u> 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. <u>First Year Seminars</u> 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 <u>student organization or club</u>, 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 <u>Conference on Undergraduate Research</u>, <u>Scholarship and Creative Activity</u>, a regional or national conference, or pursue publication in a student or professional journal.

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

Transfer Students

In support of the <u>California Master Plan for Higher Education</u>, 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 <u>the first UC campus</u> 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 <u>orientation</u> 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 <u>program list</u> 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 (<u>Student Information System - Decision Support</u>) 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 <u>Graduate Studies Adviser's Handbook</u> 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 <u>2008 Interim Action Letter</u> 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 <u>Annual Undergraduate Research</u>, <u>Scholarship and Creative</u>
<u>Activities Conference</u>, 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 <u>Undergraduate Research Center</u> (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

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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 <u>CAMP</u>, a federally funded undergraduate research program; the annual <u>UC Davis Undergraduate Research</u>, <u>Scholarship and Creative Activities Conference</u>; <u>Explorations</u>, the undergraduate research journal; and the <u>Provost's Undergraduate Fellowship</u>, a grant-supported research proposal competition.

January 2012 marked the transition of the URCenter to its permanent location in the new <u>Student Community Center</u> 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 <u>extramurally funded research mentorship programs</u> 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 (<u>BUSP</u>) managed by the College of Biological Sciences and established in 1988; the NSF-funded California Alliance for Minority Participation (<u>CAMP</u>) in STEM, now managed by the URCenter and established in 1991; and the Department of Education funded <u>McNair Scholars Program</u>, 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 <u>Miller Symposium</u> and <u>Larock Undergraduate Research Symposium</u>. 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 <u>AIP Career Pathways Site Visit Report</u> 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.

<u>The Davis Honors Challenge (DHC)</u> 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 <u>fourth-year project</u>.

Several other departmental honors programs offer enhanced curricula and with a capstone, design and/or thesis option. For example, the Mathematics major offers <u>Undergraduate Senior Thesis in Mathematics</u>, <u>research</u>, and <u>internship</u> opportunities. The English department offers both <u>creative</u> and <u>critical</u> 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 <u>UC Davis Education Abroad Center</u> (EAC) provides students with global perspectives and close interactions with UC and international faculty members. EAC offers <u>Quarter Abroad</u> and <u>Summer Abroad</u> 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 counties. In 2013, Summer Abroad is scheduled to offer 42 programs in 25 countries. Additionally, EAC offers longer-term immersion programs through the Systemwide <u>UC Education Abroad Program</u> (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 <u>UC Davis Washington Program</u> 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 <u>Internship and Career Center</u> 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 <u>Career Exploration</u>, <u>Job Searching and Networking</u> 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 <u>Pathways Career Symposium</u> 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 <u>ASUCD</u>, 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 <u>Unitrans</u>, the campus and community bus system; <u>KDVS</u>, the university radio station; and the open-enrollment <u>Experimental College</u>. Large-scale annual campus-community events including <u>Picnic Day</u> and the <u>Whole Earth Festival</u> 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) <u>Community Service Resource Center</u> 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 <u>clubs and organizations</u> managed by the <u>Center for Student Involvement</u> (CSI).

Graduate students participate in the governance of graduate student affairs through the UC Davis Graduate Student Association (<u>GSA</u>). 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 <u>Principles of Community</u> 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 <u>UCUES 2010 Campus Climate Report</u> (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 though 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 <u>Graduate Student Life</u> 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 <u>GradPathways</u>, 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 <u>Campus Recreation and Unions</u> (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 <u>Department of Linguistics</u> 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 <u>Entry Level Writing Requirement (ELWR)</u>.

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 <u>PAL Program</u>, ("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 <u>Student Academic Success Center</u>. 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 atrisk 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, <u>Survey of 2007-08 Baccalaureate Degree Recipients Educational and Occupational Outcomes</u> (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.