

# UCSC AT A CROSSROADS: ADVISORY REPORT OF THE MILLENNIUM COMMITTEE

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University of California, Santa Cruz  
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## TABLE OF CONTENTS

PREFACE	i
EXECUTIVE SUMMARY	4
A VISION FOR UC SANTA CRUZ	6
ACHIEVING THE VISION	11
<i>Undergraduate Education</i>	11
<i>Graduate Education</i>	20
<i>The Production of Knowledge</i>	25
<i>The Application of Knowledge</i>	36
<i>The Working Environment</i>	40
WORKS CITED	46



# PREFACE

**I**N ACADEMIC YEAR 1997–98, UC Santa Cruz Chancellor M.R.C. Greenwood charged us with developing a set of principles to guide campus planning during the period in which we grow from about 10,600 toward 15,000 students. To develop these principles, we consulted broadly on the main issues confronting UCSC: the engagement of education, the production of knowledge, the application of knowledge, and the working environment.

Over the period of nine months of intensive discussion and thoughtful exchange, a shared vision began to coalesce. That vision embraces a view of UCSC as an outstanding public research university that engages students and faculty across the liberal arts, sciences, and professions, while maintaining an uncommon commitment to teaching and a unique system of residential colleges.

We believe that UC Santa Cruz has a singular opportunity to realize this vision. We already enjoy an existing foundation of excellence in research and dedication to undergraduate education, and we perceive a number of circumstances that support our vision, including:

- ▶ the changed nature of state funding, so that UCSC now only receives about 40 per cent of its funding from the state;
- ▶ the changing nature of federal support;
- ▶ the changing demographic characteristics of the student body;
- ▶ the uncapping of mandatory retirement age;
- ▶ the confirmation that UCSC will grow to 15,000 students to accommodate the baby-boom “echo” and immigration to California; and
- ▶ new technologies for the creation, presentation, and dissemination of knowledge.

Rather than seeing change as a threat, we must exploit the opportunities presented by new circumstances.

In addition to being outstanding, we hold that UCSC must be distinctive. Many distinctive features already are part of our institutional character: the college system, the use of written performance assessments in addition to letter grades, the involvement of undergraduates in the creation of knowledge, a faculty that cares deeply about teaching, and a reverence for the character of the site and stewardship of the land. These attributes must be maintained and strengthened—or adapted to better suit the evolving conditions of the university and the changing needs of our scholarly community.

This report presents conclusions reached by a broadly representative committee comprising students, faculty, staff, and members of the senior administration. We asked difficult questions and left little uninvestigated. In many cases, we found that rhetoric and practice at UCSC diverge, and our recommendations try to bring rhetoric in line with practice when the practice is good.

### **About our process**

In preparation of the first draft of our report, we consulted widely, both within the university and outside it. In all, between 500 and 600 people were involved. In addition, we reviewed UCSC's major planning documents and the reports of External Review Committees that periodically evaluate departments and programs, and solicited and received many comments by e-mail. We read extensively about the future (e.g., Gee et al. 1997), the conduct (Kennedy 1997), and the evaluation (e.g., Graham and Diamond 1997) of American research universities. After the public release of our draft report, we received comments from more than 170 individuals or groups. This report reflects consideration of their suggestions.

Throughout the consultation process, we heard a consistent request to articulate a vision and establish priorities so that UCSC can be well-positioned in a changing world and become a great and mature university.

In addition to articulating principles, we provide examples of mechanisms that can allow us to implement the principles. These are described in "Achieving the Vision." In most cases, we identify the existing academic and administrative entities that are appropriate to consider and act on the mechanisms described throughout the report.

In order to help focus consideration and action, we identify three categories of actions:

*To Do Very Soon.* These mechanisms are ones that can be done rapidly and, in general, at low cost.

*Requiring Additional Analysis Before Action.* These mechanisms require further analysis by the Academic Senate, administrative, or joint committees before action can be taken.

*To Do Once Additional Infrastructure Is in Place.* These mechanisms will require significant prioritization and commitment of institutional resources, and must be considered in light of those actions.

In all categories, we have not prioritized mechanisms, and we have not estimated costs. Neither task was included in our charge from the chancellor, and we believe strongly that decisions about resource allocation are best made by those who have ongoing responsibility and accountability for such decisions.

However, we expect that the principles and mechanisms outlined in our report will be used when allocation decisions are made in the future. To ensure orderly progression toward the achievement of this shared vision, we anticipate a yearly report from the administration and the Academic Senate (e.g., at the spring meeting of the Academic Senate or at the Chancellor's Fall Retreat) detailing progress in evaluating and implementing these mechanisms.

### **About this publication**

The format of this report leads the reader first to a general overview of the vision for UC Santa Cruz, a list of guiding principles and conclusions of the committee as presented in the "Executive Summary"; then to an in-depth discussion of those principles in the section "A Vision for UC Santa Cruz"; and finally to a full discussion of the vision, including some indicators and mechanisms in "Achieving the Vision." A list of "Works Cited" concludes this document.

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# EXECUTIVE SUMMARY

The central principles for the future of UC Santa Cruz are:

**UCSC must be an outstanding research university with an uncommon commitment to high-quality undergraduate education.**

**UCSC will serve the people of the region, the state, the nation, and the world by the engagement, development, and application of knowledge.**

**UCSC will offer an education that will enable our students to become tomorrow's leaders and prepare them for a lifetime of learning.**

**UCSC will attract, retain, and advance a diverse student body, faculty, and staff from many different communities in the state, nation, and world.**

**UCSC will commit itself to high-quality production and transmission of knowledge across all disciplines.**

**UCSC will plan its growth and development with attention to sustainability and in consultation with the larger external community.**

The goals that will enable the realization of this vision are:

- ▶ UCSC will be committed to an undergraduate education characterized by disciplinary depth, rigorous breadth, and a high level of direct interaction with research faculty.
- ▶ UCSC will be committed to written assessments of student performance with a focus on scholarship, critical thinking, creativity, and diligence.
- ▶ UCSC will be committed to maintaining and strengthening the integrated learning communities provided by the colleges.
- ▶ UCSC undergraduates will continue to participate in high-quality research and the generation of new knowledge.
- ▶ UCSC will offer a variety of graduate degree programs at the M.A./M.S. level that complement our Ph.D. programs and are consistent with our educational mission.
- ▶ UCSC will ensure that the opportunity to supervise graduate students will be widely available to faculty.
- ▶ UCSC will provide opportunities for graduate students to learn how to teach effectively.
- ▶ UCSC will foster graduate education via strong financial support and effective graduate student services.

- ▶ UCSC will demonstrate commitment to the development, across the divisions, of top-quality, internationally recognized research programs, will encourage faculty initiatives to build and maintain top programs, and will take risks when the potential rewards are great.
- ▶ UCSC will help faculty members secure the time, financial support, and collaborations to maximize their success in research and other creative and scholarly activities that provide a vital intellectual life for the university.
- ▶ UCSC will maintain an excellent library and an outstanding information and communication infrastructure.
- ▶ UCSC students, staff, and faculty will contribute to society through long-term engaged partnerships—with elementary and secondary schools, community colleges and universities, business, alumni, government, community, environmental, and international organizations.
- ▶ UCSC will generate knowledge that is useful to the wider society, making that knowledge accessible to the public, and involving the academic community in direct service to society.
- ▶ UCSC will enhance administrative nimbleness by establishing academic and programmatic priorities, using resources strategically to create and respond to new opportunities, and adjusting priorities as external conditions change.
- ▶ UCSC will encourage excellent management practices that foster good communication among staff, faculty, and students.
- ▶ UCSC will be a respectful community that requires its members to treat one another in an ethical, supportive, and sensitive fashion.

Subsequent sections amplify these principles and goals, laying out an ambitious and specific agenda for the future.

What is most important is the basic framework for UC Santa Cruz. We must be an outstanding research university with an unparalleled commitment to high-quality undergraduate education. Our faculty, students, and staff must engage with the region, the state, and the nation in long-term sustained partnerships. We must retain our elements of distinction even as we strive to provide national and international leadership in education, research, and public policy for the next century.

As the campus moves forward within this framework, the vision will come to life. Faculty, students, staff, and community partners will identify and act on specific priorities. A campus culture stressing collaborative and flexible relationships will allow us to respond to opportunities even as there is a renewed commitment to the overall goals of engaged education, research, and service. The proud history of UC Santa Cruz and our hopeful future will animate us. UC Santa Cruz is now poised to make the choices that will secure our place in the ranks of the best American research universities.

**Achieving the dual goals of excellence as a research university and unwavering commitment to excellent teaching will set UCSC apart from nearly all research universities.**

## A VISION FOR UC SANTA CRUZ

This is an expanded discussion of the six statements that summarize the shared vision for UCSC, as introduced in the Executive Summary.

- ▶ *UCSC must be an outstanding research university with an uncommon commitment to high-quality undergraduate education.*

From its inception, UCSC was envisioned as the major research university for the central California coast. The original academic plan for UCSC (1962) called for 27,500 students (including 12,000 graduate students) in 1990, residential colleges, year-round operations, an engineering school, a business school, and a school of natural resources and forestry. Faculty at UCSC are appointed and promoted according to the same standards and criteria as faculty at any other UC campus. From its inception, UCSC was envisioned as the UC campus most clearly dedicated to high-quality undergraduate instruction. Indeed, this has worked to our financial detriment, since the balance between undergraduate and graduate students at UCSC favors undergraduates, whereas until recently the funding allocation in the UC system favored graduate students. As of 1997–98, allocations are uniform across student types, with a base that was set at 1990 student levels.

The original vision of UCSC has been maintained by exceptional service and commitment on the part of faculty and staff, and the budget cuts of the early 1990s showed how vulnerable we were. For example, for UCSC to maintain a research profile consistent with other UC campuses, and to teach most courses in small enrollments or seminar format, would require either per-capita student funding similar to that of the best private research universities (more than twice that of UCSC), or else that students pay more at UCSC than at other UC campuses. Neither is possible. What is remarkable is how well we have done under this original mandate. Even under the constraints imposed by a predominantly undergraduate student body, UCSC has achieved considerable fame in research. In 1996, *U.S. News & World Report* ranked UCSC #13 nationally for its “unusually strong commitment to undergraduate teaching.” The 1997 Graham and Diamond report, which measured faculty distinction on a per-capita rather than aggregate basis (per-capita measures do not penalize smaller universities), ranked UCSC #11 among the top public research universities (Graham and Diamond 1997, Table 6.7).

Achieving the dual goals of excellence as a research university and unwavering commitment to excellent teaching will set UCSC apart from nearly all research universities. A private university that has attempted to achieve this ideal is Princeton University, about which Rhodes (1998, p. 4) writes, “If Princeton has fewer critics than most research universities today, perhaps it is because Princeton has dealt with the issues that critics complain about better than most. Although indisputably among the nation’s very best research universities, it has never stopped putting undergraduate education first.”



Princeton, of course, is old, private, and very well endowed. But we believe that a young public university can achieve greatness in both research and teaching if we set our goals carefully and pursue them with zeal.

- ▶ *UCSC will serve the people of the region, the state, the nation, and the world by the engagement, development, and application of knowledge.*

We use the phrase “the engagement, development, and application of knowledge” to stress that teaching, research, and service do not inherently conflict, and in the right setting they reinforce each other. Successful universities in the next century will be the ones that rearrange activities and resources so that knowledge-based activities enhance each other and their programs make effective use of shared resources.

Our region includes San Mateo, Santa Clara, Santa Cruz, San Benito, and Monterey Counties. All great universities have a regional base and regional connections, and all great regions have an anchor public university. Our region includes Silicon Valley and San Jose. Silicon Valley is the technological capital of the world; San Jose is the third largest city in California and the 11th largest in the country. It is home to the most rapidly growing labor market and in 1992 had a population that was 42 percent minority—a microcosm of the future of California. Santa Cruz, Monterey, and San Benito Counties contain some of the most productive and richest agricultural land in the nation. UCSC helped create organic agriculture, now a \$2 billion-dollar-a-year business. We are still a leader in sustainable agriculture. Our region also includes Monterey Bay, home of the largest ocean sanctuary in the nation and the location for a national experiment in converting from military spending to sustainable agriculture and environmentally sensitive business strategies.

UCSC is also situated in a wider global context. The 21st century will be distinguished by an unparalleled degree of global interchange and collaboration. International issues are already increasingly prominent in scholarly, commercial, and professional pursuits. New forms of international collaboration will be essential among UCSC faculty, including expanded global partnerships between UCSC faculty and foreign scholars and institutions. In order to function successfully as citizens and professionals in the 21st century, our students will require a deeper understanding of global issues, international events, and foreign cultures.

Although Santa Cruz will remain central to UCSC, we envision growth of satellite units, including University Extension (UNEX) centers in the Santa Clara Valley and the Monterey Bay Education, Science, and Technology (MBEST) Center at the former Fort Ord. UCSC will become the leader in the Monterey Bay Research Crescent: a world center for environmental, economic, and cultural studies; a national symbol of excellence in research and education; and a community dedicated to preserving and promoting economic, social, and environmental welfare.

**In order to function successfully as citizens and professionals in the 21st century, our students will require a deeper understanding of global issues, international events, and foreign cultures.**

**We will seek students who will be tomorrow's leaders—individuals who will make a difference in a world that is rapidly changing and hard to predict.**

► *A UCSC education will enable our students to become tomorrow's leaders and lifelong learners.*

After one attains a threshold level of skill and knowledge, success in life depends upon how one deals with the unknown. Our students must become lifelong learners. We will seek students who will be tomorrow's leaders—individuals who will make a difference in a world that is rapidly changing and hard to predict. We will provide them with the abilities to make a difference wherever they go and will ensure that the best and brightest receive opportunities that challenge them throughout their undergraduate years. As we become more selective, we must also work hard to encourage applications from the broadest spectrum of society. Part of this outreach will, of course, involve improving UC eligibility. However, UCSC must maintain a commitment to improving K–14 education in California and the nation, not just improving UCSC eligibility.

Interdisciplinary work based on a foundation of disciplinary rigor will become more important in the future. We envision a UCSC education in which students engage in team-based learning and become comfortable with a global perspective. Our students will face a world where crossing into new areas of performance and being able to function effectively in groups or teams are valued, and where local actions can have global economic, environmental, and cultural effects.

We concur with the Kellogg Commission on the Future of State and Land-Grant Universities that a college education does not end with a degree, that the student experience should not be reserved for the fortunate few between 18 and 25 willing to attend full-time, and that the university experience must extend beyond the campus boundaries. Lifelong learning means that our campus will be actively engaged in continuing education for all segments of our society. We envision that UNEX will play an important role that complements that of the campus. This role includes addressing the career needs of adult professionals; enhancing the intellectual and cultural life of all Californians by providing programs in the sciences and liberal and fine arts; expanding awareness and understanding of public issues; assisting people in examining the political, sociological, and psychological dimensions of life; enabling students to make progress toward degrees; and providing students with necessary skills to succeed at the university.

► *UCSC will attract, retain, and advance a diverse student body, faculty, and staff from many different communities in the state, nation, and world.*

By the year 2005, every racial and ethnic group in California will be a minority, and California will be a microcosm of the world. The university workforce and the student body will be affected by continuing changes in the workforce and at home, as well as the increase in adult students with jobs and family responsibilities and students with disabilities. Diversity is a positive value in a university environment because it requires critical and

reflective acknowledgment of ongoing differences in our society. Creating a diverse university environment redistributes access to power and knowledge and, at the same time, changes how power is exercised and what counts as knowledge. Thus, UCSC must actively cultivate diversity in our recruitment and retention of students, faculty, and staff; in our curricular innovations; in our public policy and public service; and in our scholarly and creative work. The enhancement of diversity in all these realms will require commitment, leadership, and incentives.

Today, one-third of UCSC's faculty are women; since 1990, over 40 percent of the ladder-rank faculty hired have been women. Somewhat less than a quarter of full professors are women. Of current ladder-rank faculty, 22 percent are listed as minority faculty (10 percent Asian and Asian American, 7 percent Hispanic, 4 percent African American, approximately 1 percent American Indian). Much remains to be done to hire and retain a diverse faculty (Chancellor's Commission on a Changing Campus [CCCC] 1997).

In order to attract and retain top-quality faculty and staff, UCSC must recognize that many employees have partners who also need and want employment. Recent surveys of faculty (1995, 1997) indicate that partner employment is a major issue for new faculty, and that it often determines whether a faculty member remains at UCSC or not.

Many faculty also have children, and on-campus child care is an important need. Child care has been set forth this year as a national and state priority. Providing good child care is a vital element in employee productivity, success, and retention. An on-campus Child Development Facility could meet this need, while also providing valuable observational, teaching, and field-placement opportunities for students in psychology and education at both the undergraduate and graduate level. It is an example of how UCSC can use strong and effective cross-divisional partnerships to address space, programmatic, and academic needs.

► *UCSC will commit itself to high-quality production and transmission of knowledge across all disciplines.*

UCSC is known nationally and internationally for its research ("research" hereafter means the discovery and creation of the new in the arts, humanities, and sciences) in anthropology, astronomy, biology, cultural studies, earth sciences, environmental studies, the history of consciousness, marine sciences, music, psychology, the visual arts, and other areas. We must value contributions across the breadth of the academic disciplines. We envision that UCSC will enhance the conditions for research and creative activity; seek expanded funding sources for the production of knowledge; develop new research partnerships with other educational institutions, industry, and government at various levels; expand research opportunities for undergraduate students; and promote the development of research that contributes to debates on national, regional, and local issues. These points are elaborated in greater detail in the sections that follow.

**UCSC must actively cultivate diversity in our recruitment and retention of students, faculty, and staff; in our curricular innovations; in our public policy and public service; and in our scholarly and creative work.**

**As the campus grows,  
we should do all that  
we can to make our  
environmental impact  
consistent with a  
sustainable community.**

- ▶ *UCSC will plan its growth and development with attention to sustainability and in consultation with the larger external community.*

The 1988 “Long Range Development Plan” (LRDP) calls for UCSC to grow to 15,000 students. We believe that UCSC should develop its growth plan in collaboration with local community partners in ways that enhance mutual benefit and access by the community and campus. Areas of joint concern include, but are not limited to, transportation, housing, health and safety, child care, and parking. As the campus grows, we should do all that we can to make our environmental impact consistent with a sustainable community, and we should educate our students on the nature of sustainability and how to contribute to it.

How modern societies can live and prosper sustainably on the planet is one of the greatest challenges facing humankind. UCSC can help to focus attention on this question both through the teaching and research done here and as an exemplar in planning our own growth and development.

# ACHIEVING THE VISION

## UNDERGRADUATE EDUCATION

- ▶ *UCSC will be committed to an undergraduate education characterized by disciplinary depth, rigorous breadth, and a high level of direct interaction with research faculty.*

From its inception, UCSC has had a strong commitment to the values of an undergraduate education. These include disciplinary depth in the subject matter of a student's major, rigorous breadth that provides substantive understanding and proficiency in other fields of academic endeavor, and a high level of skill in writing, visual analysis, numeracy, and critical thinking. This commitment has never wavered, even when at a national level the primary mission of undergraduate teaching fell into neglect (Boyer 1998). Similarly, UCSC never wavered from the commitment to a high level of faculty involvement in undergraduate education. However, principle and practice often diverge. New budgetary realities and new delivery technologies force us to rethink teaching. Although small seminars are often extremely stimulating for faculty and students, large lectures taught by our very best instructors, followed by small sections taught by graduate teaching assistants, can also be extremely effective. The best team teaching can make large lectures into an exciting environment in which the level of learning is very high. We must achieve an appropriate mix of class formats so that departments will be able to meet well-defined obligations to the public, the students, and the institution.

An educated person knows how to fill in the gaps in his or her background; independent learners are active, not passive. An educated person in the next century will require verbal, visual, computational, and problem-solving skills, an openness and ability to explore and utilize new and developing technologies, and the courage and self-confidence to deal with the unknown. Undergraduate education at UCSC will offer students a variety of opportunities that cultivate a lifetime habit of curiosity, while preparing them for future careers and professional life: engaging in research with faculty, participating in internships and field experience, and contributing to community service.

In advocating "rigorous breadth," we mean to highlight the virtues of a broad education. Only under the rarest circumstances should majors be "preprofessional." In addition to learning in introductory courses in fields outside of a disciplinary major, a student should develop some kind of academic concentration. This might be advanced language training or a cluster of courses within a division outside of the student's major division.

Rigorous breadth includes other aspects of university life and public service. For example, from its inception, UCSC has had a broad range of physical education offerings and a

**Undergraduate education at UCSC will offer students a variety of opportunities that cultivate a lifetime habit of curiosity, while preparing them for future careers and professional life.**

**Athletic programs are an integral part of the lives of the students and promote the same values as academics, including persistence, commitment, courage, teamwork, and goal setting.**

**Foster and support increased undergraduate student and faculty participation in international education programs.**

strong intramural program (in which about 3,500 students participate); in 1980 an intercollegiate athletic program at the NCAA Division III (nonscholarship) level was added. These athletic programs are an integral part of the lives of the students and promote the same values as academics, including persistence, commitment, courage, teamwork, and goal setting. Intercollegiate nonscholarship athletics, which puts UCSC in the same division as Swarthmore, Oberlin, Amherst, and Williams, is consistent with the UCSC educational mission and can reinforce rigorous academics and a sense of community. Division III intercollegiate athletic programs also promote diversity and increase public visibility.

#### THE NEXT STEPS: TO DO VERY SOON

##### *For the Academic Senate:*

Eliminate the requirement of teaching a 1–3 credit course in the colleges. These courses do not make the most effective possible use of faculty time; they do not consistently contribute to disciplinary depth or rigorous breadth and have not successfully facilitated faculty involvement in the colleges (which we discuss in a following section).

##### *For the Committee on Educational Policy:*

Establish an honors program. The CEP should determine the specific features of an honors program appropriate for UCSC. This could include seminars for first-year and transfer students as well as research-oriented seminars. Such a program could also include a fourth “honors” course each term and cooperative research projects in which students work in small groups.

Incorporate +/- into the letter-grading system.

##### *For the Divisional Deans:*

Facilitate more cross-listed courses, in order to emphasize the interdisciplinary nature of much intellectual inquiry and make the broadest possible range of courses available to our students.

##### *For the Education Abroad Program Committee:*

Foster and support increased undergraduate student and faculty participation in international education programs. Such efforts include increasing awareness among all students, including educationally disadvantaged and transfer students, of the role international education plays in an increasingly global and transnational community. Access to and support for the Education Abroad Program should be an integral part of undergraduate education.

*For the Office of Summer Sessions, in consultation with Departments and Divisions:*

Expand the number and diversity of rigorous offerings in Summer Session. This has at least two advantages. First, many of our own majors will be able to use the summer to satisfy lower-division and entry-level upper-division prerequisites. Second, students from other universities will be attracted here by the mixture of natural beauty and excellent education; this can generate revenue for departments offering summer courses. Based on present cost relationships, it appears that an expanded Summer Session can continue to be self-supporting.

*For the entire UCSC Community:*

Raise retention and graduation rates to the UC average or better as soon as possible. It is not enough to grow. We must retain the best students and ensure that students graduate in a timely fashion. We consider it a campuswide responsibility to increase the retention rate of first- and second-year students and to increase graduation rates.

#### THE NEXT STEPS: REQUIRING ADDITIONAL ANALYSIS BEFORE ACTION

*For a joint Academic Senate–Administrative Committee:*

Consider switching to a semester system. The semester system allows students time for assimilation and synthesis of material that the quarter system does not. There are many transaction costs associated with switching to a semester system, and we need to determine if the benefits will outweigh the costs.

*For the Associate Vice Chancellor for Undergraduate Education and the Committee on Teaching:*

Consider creating a campuswide learning center with close connections to the faculty. Such a center would work to ensure the academic success of students who find themselves in need of academic support beyond the classroom. Existing pockets of campus learning resources could be consolidated into a more efficient, centralized service. The great advantage of one location is that students would easily find comprehensive learning assistance, faculty and staff would have a readily identifiable resource for student referral, and administrative costs would not be duplicated.

Evaluate, by department, the advising system with respect to diversity issues, and coordinate more closely with college efforts to advise and assist students. We endorse the CCCC recommendation that each department invite an experienced member of the student affairs staff, possibly a college academic preceptor, to serve as a consultant to the department on matters of student retention.

**It is not enough to grow. We must retain the best students and ensure that students graduate in a timely fashion.**

**In addition to providing letter grades to all students who request them, UCSC should reaffirm its commitment to written assessments of student performance.**

- ▶ *UCSC will be committed to written assessments of student performance with a focus on scholarship, critical thinking, creativity, and diligence.*

In addition to providing letter grades to all students who request them, UCSC should reaffirm its commitment to written assessments of student performance. These are an integral part of teaching at UCSC. The writing of assessments shapes one's teaching and changes the way students are regarded: Teaching is not just presenting information, and learning is not just acquiring information.

We emphasize to all readers that a passing grade is equivalent to a "C" in a letter-grade system; students whose work is marginal but passing—"D" in a letter-grade system—do not pass in our system. We believe that these written assessments should be recognized as performance assessments, not mini-letters of recommendation. In the nonacademic world, where performance assessments rather than grades are the rule, such assessments provide constructive criticism, not just glowing commentary about performance. Ours should do the same.

#### THE NEXT STEPS: TO DO VERY SOON

##### *For the Committee on Educational Policy:*

Require that faculty provide performance assessments to all students, including those who do not pass the course. A student deserves a performance assessment in the case of failing performance; feedback in these cases may be even more important than in cases in which students pass.

##### *For the Registrar:*

Build adequate time to write assessments into the academic calendar. It should be standard practice for assessments to be filed immediately after the close of the quarter, or the semester if UCSC switches to a semester system.

#### THE NEXT STEPS: REQUIRING ADDITIONAL ANALYSIS BEFORE ACTION

##### *For the Committee on Educational Policy:*

Establish clear policy for assessments in large courses. We must resolve, in a timely fashion, the problem of written assessments in large courses (i.e., courses of 40 students or more). Possibilities include: (1) Establish the practice that the immediate supervisor will write the performance assessments. In the case of large courses with sections, the faculty member will train section leaders to write them, and the assessments will then be countersigned by the faculty member. This has been the informal practice at UCSC since at least 1981. It requires a rewriting of the job description of teaching assistants who are section leaders, with time for writing assessments factored into the workload.



(2) Establish the practice of using standard assessment menus (possibly computer-generated) in large classes. (3) Establish the practice of using summary abstracts of performance in large classes.

► *UCSC will be committed to maintaining and strengthening the integrated learning communities provided by the colleges.*

The colleges are an integral part of the physical plant and educational experience at UCSC. Across the U.S., many universities are instituting college systems similar to the one that we already have in place. Indeed, Princeton University—more than 250 years old—only implemented residential colleges similar to those at UCSC in the 1980s (Rhodes 1998). The colleges have been very successful at providing a small community within a larger one, leading students from high school to the university, developing their basic skills, and maintaining diversity. Some colleges, such as Cowell and Porter (which have special endowments for the purpose), have managed to retain their tradition of faculty involvement, but others have not.

We envision a UCSC in which the colleges are strengthened and in which the provosts function as associate deans. We further envision an alliance among the colleges, departments, and divisions. They must cooperate, not compete. A sensible association of faculty with colleges, in which powerful incentives are provided for faculty to bring departmental teaching into the colleges, will give the faculty a reason to be active in the intellectual life of the colleges. We need to create an intellectual community powerful enough to transcend the physical fragmentation of faculty office space.

THE NEXT STEPS: TO DO VERY SOON

*For the Provosts, Divisional Deans, and Departments:*

Determine a means to associate faculty with colleges in a manner that emphasizes interdisciplinary connections.

Ensure that faculty instruction in the colleges is not an overload by coordinating teaching between departments and colleges and providing appropriate teaching credit to departments when faculty teach courses in the colleges.

Once the preceding steps are completed, develop means so that clusters of faculty, in cooperation with their departments and under the leadership of the provost, will offer an intellectually rigorous entry course that stresses critical thinking and regular and meaningful interaction with the faculty. In some cases, for example those primarily taught by faculty in the humanities and social sciences, such courses might be analogous to the current core courses. In other cases, for example those involving faculty in the natural sciences, new kinds of courses—stressing quantitative thinking and the scientific method—may be needed. In all cases, entry-level students (first-year and transfer) must be exposed

**The colleges are an integral part of the physical plant and educational experience at UCSC. Across the U.S., many universities are instituting college systems similar to the one that we already have in place. . . . We envision a UCSC in which the colleges are strengthened.**

**Entry-level students (first-year and transfer) must be exposed to the excitement and fascination of investigation at the cutting edge of a discipline or a cluster of disciplines.**

**Consider establishing long-term ties with one or more K–12 schools in the region, so that college students become involved in the educational life of the schools.**

to the excitement and fascination of investigation at the cutting edge of a discipline or a cluster of disciplines. This, after all, is one of the attractions of undergraduate education at a research university.

*For the Provosts:*

Involve graduate students in college life by creating Junior Fellowships in the colleges.

Ensure that each college has a common room in which faculty and graduate students can meet.

THE NEXT STEPS: REQUIRING ADDITIONAL ANALYSIS BEFORE ACTION

*For the Executive Vice Chancellor:*

Ensure that the college provosts have the resources to allow them to fulfill their primary responsibility, which is the intellectual, cultural, and academic leadership of the colleges.

*For the Provosts:*

Consider establishing long-term ties to specific business and industrial organizations that would be partners or sponsors of the college. This should be a two-way activity, with college students and faculty involved in the outside organizations and the reverse. Similarly, consider establishing long-term ties with one or more K–12 schools in the region, so that college students become involved in the educational life of the schools.

*For University Advancement:*

Increase the endowments of all colleges by appeals to alumni, parents of alumni, and other sources to enable the provosts to provide effective leadership.

► *All UCSC graduates will be fluent in oral and written communication, visual and expressive analysis, quantitative reasoning, and advanced technologies relevant to their field of study.*

Every UCSC undergraduate is entitled to develop skills in writing, language, visual communication, numeracy, and computation. These should be funded by the campus as a whole, even if individual divisions administer the programs.

In 1992, an external review noted that the writing program was unique within the UC system in structural and pedagogical effectiveness. Our record in training students in the use of quantitative reasoning (e.g., mathematics and statistics) and technological skills is less consistent. We envision that all UCSC students should understand mathematics and quantitative reasoning; our students should know how to use computing technologies for analysis, communication, and expression.

We struggled to determine a vision for second-language study at UCSC, but were unable to arrive at a satisfactory one. We see little use in emphasizing a language requirement that can be met at the time of admission (as is true at most universities); this is a selection mechanism rather than a language requirement. In our discussions with faculty across the disciplines, however, we encountered serious differences of opinion on the question of whether to require foreign-language study of every undergraduate. We recognize that foreign-language learning is important. We urge the creation of a campus culture in which students are encouraged to acquire another language as part of their undergraduate education, and where the uses and pleasures of learning a foreign language are recognized and fostered by academic advisers, faculty in a variety of disciplines, and cocurricular activities.

The writing and language programs involve, indeed require, many lecturers, some of whom now have Security of Employment (SOE) and some of whom are on renewable contracts. It would be disingenuous of us not to address the desirability of appointing more Security of Employment lecturers. Simply put, such appointments are the purview of faculty in individual departments. An SOE appointment uses a faculty position that thus becomes unavailable for a professorial appointment. Individual departments may choose to use some of their new resources in this manner, but this should be done through departmental consultation and open searches.

#### THE NEXT STEPS: TO DO VERY SOON

##### *For the Academic Senate Advisory Committee:*

Establish mechanisms for regular input by lecturers to Academic Senate committees pertaining to undergraduate education.

##### *For the Associate Vice Chancellor for Undergraduate Education:*

Strengthen and make more widely available resources for entering students who must compensate for disadvantaged educational backgrounds. This effort should include coordination with community colleges, access to writing workshops and tutors, and assisted cocurricular study groups such as those developed recently by several of the colleges. Consider establishing a program similar to that run by Bard College, with intensive three-week writing workshops after Labor Day but before the start of classes.

##### *For the Committee on Educational Policy:*

Introduce a “Subject M” (quantitative) examination that mirrors the Subject A examination.

##### *For Departments:*

Ensure that writing is taught and required at every level of undergraduate education. For example, in addition to core and composition courses at the first-year level, a writ-

**We urge the creation of a campus culture in which students are encouraged to acquire another language as part of their undergraduate education.**

**Ensure that writing is taught and required at every level of undergraduate education.**

**Undergraduate involvement in the generation of new knowledge characterizes universities, like UC Santa Cruz, that Graham and Diamond termed “challengers” and “rising universities for the 21st century.”**

ing-intensive course taught in the major and required of every student (e.g., by associating writing with core courses in the major) would provide midlevel training. In doing this, we might want to investigate using graduate students as teaching assistants in sections and undergraduate course assistants as writing tutors.

Set standards for minimal skills in computer use.

*For Departments and Colleges:*

Encourage foreign-language training when appropriate to the major or area of study; advise students about the language concentration and the nonmajor focus options in the new general education recommendations.

*For the Divisional Deans and Departments:*

Strengthen the involvement of graduate student teaching assistants in training students to write. Doing this will provide additional support and training for graduate students and will allow our best writing instructors to influence the training of more individuals.

*For the Executive Vice Chancellor:*

Complete the process of creating funding for a stand-alone writing program.

- ▶ *UCSC undergraduates will continue to participate in high-quality research and the generation of new knowledge.*

Undergraduate involvement in the generation of new knowledge is something that we already do very well at UCSC. Slovak (1997) studied awardees of NSF Graduate Fellowships in Engineering and Sciences and Mellon Foundation Fellowships in the Humanities for 1996. Slovak used the per-capita measure of awards/1,000 graduates and examined which institutions produced the most awardees and which institutions' graduate programs attracted the most awardees for study. UCSC ranked #1 in per-capita production of awardees and #4 among destination schools. Slovak concluded that among the recipients, aside from the famous technical schools, the high rankers are institutions that “are and are known to be focused heavily at the undergraduate level on the pursuit of scholarship in most of the traditional arts and sciences.” He continued, “Institutions that are able to attract awardees at rates higher than predicted from their size and levels of faculty activity are generally those termed ‘challengers’ by Graham and Diamond. These are institutions which, over the past two decades, have attempted to position themselves so as to join the ranks of their peers who are generally recognized as being the elite of American research universities. Judging by their disproportionately high awardee attraction rates, a number of them have succeeded in achieving that goal.”

Furthermore, UCSC already achieves the recommendation of the Kellogg Commission on the Future of State and Land-Grant Universities that students take responsibility for their own learning and that we introduce many more of them to research, as collaborators with faculty and graduate students and as seekers and inventors of new knowledge in their own right. The Chancellor's Undergraduate Internship Program allows students who are interested in public administration to participate in projects at the administrative level within the university and complements more standard research projects.

Even so, we believe that the involvement of UCSC undergraduates in research can be strengthened.

#### THE NEXT STEPS: TO DO VERY SOON

##### *For Departments:*

Establish an option for supervised research courses in departments that currently do not have one. Provide modest funding for academic undergraduate research projects, e.g., cost of travel and materials.

Include in a formal way the supervision of undergraduate research students in the determination and evaluation of teaching responsibilities. Research supervision at any level requires faculty time and commitment if it is done well. Consequently, the supervision of undergraduate research students should not be considered an add-on to other teaching responsibilities, but should be considered as part of the mixture and evaluated accordingly.

##### *For the Office of Financial Aid:*

Encourage and publicize the use of work-study students for research assistance.

#### THE NEXT STEPS: REQUIRING ADDITIONAL ANALYSIS BEFORE ACTION

##### *For the Associate Vice Chancellor for Undergraduate Education and University Advancement:*

Create an Undergraduate Research Opportunity Initiative, funded by an endowment and available to students across the divisions. Consider waiving indirect cost recovery on the hiring of undergraduate research assistants. This initiative would pair students with faculty for compensated work on faculty research projects.

**We believe that the involvement of UCSC undergraduates in research can be strengthened.**

**The supervision of undergraduate research students should not be considered an add-on to other teaching responsibilities, but should be considered as part of the mixture and evaluated accordingly.**

**Research, used here and throughout this report to include creative activity in the arts, is integral to the mission of the university in service to the people of California.**

**Increasing the commitment to graduate education will improve the undergraduate experience and the quality of undergraduate education.**

## GRADUATE EDUCATION

- ▶ *Graduate education at UCSC will serve the public by providing high-quality advanced training, intellectual development, and research methodology for a wide variety of careers.*

The University of California was founded in 1868 as a public, state-supported land-grant institution of higher education. The mission of the university is to serve society in a variety of ways, and graduate education is one of them. Currently, there are graduate programs or professional degrees in all of the departments in the Division of Natural Sciences and the School of Engineering, in most of the departments in the Division of Social Sciences, and in some of the departments in the Division of Humanities and the Division of the Arts. Alumni of UCSC graduate programs have moved into positions of leadership in academia, the arts, business, government, and industry.

Although UCSC draws strength from its regional base in California, its role in the national and international arenas is also important. As a state institution, our first duty must be to serve the citizens of California. At times, this may be best accomplished by training out-of-state and foreign students who remain in the state to contribute to its economic development (examples in our own region include the biotechnology and computer technology industries).

A major portion of the visibility and public recognition that UCSC receives and deserves comes from the research accomplishments of its faculty, which often involve graduate student training. Such excellence requires that we be able to attract, recruit, and retain the best graduate students and faculty, regardless of their ethnic or national backgrounds. The quality of the faculty and that of the graduate students are inexorably linked through the research environment.

Excellence in research, scholarship, and graduate education leads to an enhanced reputation for the university, then to increased funding through external sources, endowments, gifts, and enrollments, and to greater resources for research, and thus more excellence in research and scholarship. This process helps to attract the best undergraduate students and expose them to the most exciting events in their fields. Undergraduates benefit, directly and indirectly, from being in a research environment. Indeed, their decision to enroll at any particular university is usually more related to the public reputation of the school, which is derived largely from the accomplishments of its faculty, than to its reputation in teaching. Thus, increasing the commitment to graduate education will improve the undergraduate experience and the quality of undergraduate education. UCSC needs further identification and development of “niche” areas in which we are uniquely able to build a strong program. We should focus resources in those areas and build excellence there.

Our graduates will be employed in academia, industry, government, and K–14 teaching. We must take cognizance of changing job markets in determining enrollment in graduate programs. We must also assure that the campus and Career Center provide appropriate advice on job placement. Every graduate program should identify a core set of transferable skills that will be useful regardless of where a student ends up working.

#### THE NEXT STEPS: TO DO VERY SOON

##### *For the Executive Vice Chancellor:*

Make the position of graduate dean a full-time position. Under the leadership of the dean, the Division of Graduate Studies will provide greater centralized graduate student services and placement/career counseling, work with the Office of Sponsored Projects on graduate student funding opportunities, sponsor workshops and seminars on professional development and specific training, and provide a sense of community to UCSC's growing graduate student population.

##### *For the Division of Graduate Studies:*

Improve advertising and outreach (Web pages, etc.) concerning UCSC graduate programs. An improved image and reputation will also aid in placement of our students as they enter the job market.

##### *For the Provosts:*

Develop means for including graduate students in the colleges so that they feel more connected to the UCSC experience and so that undergraduates have more contact with graduate students.

#### THE NEXT STEPS: REQUIRING ADDITIONAL ANALYSIS BEFORE ACTION

##### *For the Executive Vice Chancellor:*

Assure that graduate enrollment growth is accompanied by appropriate resources to provide financial support and research opportunities for additional graduate students.

- ▶ *UCSC will offer a variety of graduate degree programs at the M.A./M.S. level that complement our Ph.D. programs and are consistent with our educational mission.*

The development of graduate education at UCSC has led to an imbalance between Ph.D. programs and the M.A./M.S. programs, favoring Ph.D. programs. M.A./M.S. degrees, however, are much more than “terminal” consolation prizes for students who are unable to achieve the level of a Ph.D.

**We must take cognizance of changing job markets in determining enrollment in graduate programs.**

**Every graduate program should identify a core set of transferable skills that will be useful regardless of where a student ends up working.**

**We recognize the growing importance of professional degrees and advanced training. Many possible M.A./M.S. degrees, including self-supporting ones, are consistent with the educational philosophy at UCSC.**

We recognize the growing importance of professional degrees and advanced training. Many possible M.A./M.S. degrees, including self-supporting ones, are consistent with the educational philosophy at UCSC. Examples include the existing M.A. in literature, the M.A. in music, the M.S. in applied economics and finance, the M.S. in marine sciences, and the M.S. in computer engineering, and possible programs such as an M.S. in environmental studies or environmental toxicology, an M.A.T. degree in subject matter ranging from literature to history to mathematics for public school teachers, and an M.A. in public policy. The Jack Baskin School of Engineering will build links between academic research and professional activities, with practical benefits for the community. Professional degree programs could be self-supporting or revenue-generating for UCSC while simultaneously serving an important group of California residents. Furthermore, as the campus grows, we have an opportunity to achieve a large fraction of that growth by enrolling M.A./M.S. students. This has a number of advantages, the most important being that it would more fully utilize resources.

**Interaction with graduate students contributes to the intellectual life of the community, and broad faculty involvement enables graduate students to draw upon a range of resources.**

► *The opportunity to supervise graduate students will be widely available to faculty.*

Interaction with graduate students contributes to the intellectual life of the community, and broad faculty involvement enables graduate students to draw upon a range of resources. If we are to recruit and retain faculty of the highest quality, we must provide the opportunity for all faculty to engage in work with graduate students. This does not require, however, that every discipline support its own degree program. Graduate education should be undertaken with a balanced consideration of social needs and opportunities. Intelligent choices about the development and demise of graduate programs must be undertaken by the faculty to ensure that we continue to serve our constituents within and beyond the academic community. Interdisciplinary graduate groups provide many benefits to both faculty and students, and strong interactions among departments have been a hallmark of UCSC. Such groups allow faculty to work with graduate students without having each department start its own graduate program. As we build out existing programs and consider establishing new ones, the question of program size arises. Without being prescriptive, we acknowledge that the fundamental rule is this: We should never sacrifice quality for size.

THE NEXT STEPS: TO DO VERY SOON

*For the Associate Vice Chancellor for Planning and Programs:*

Develop guidelines for the establishment of and use of resources to support interdepartmental graduate groups.



- ▶ *At UCSC, graduate students will learn how to teach effectively.*

As part of its commitment to excellence in undergraduate education, UCSC must ensure that its graduate students receive the best possible training in order that they can contribute to this effort. This not only enhances graduate/undergraduate interactions and improves the undergraduate teaching experience, but it prepares graduate students for future careers in teaching, academia, and business. We believe that UCSC should strongly and explicitly maintain the goal of training college and university professors for the 21st century.

#### THE NEXT STEPS: TO DO VERY SOON

*For the Associate Vice Chancellor for Undergraduate Education and the Center for Teaching Excellence:*

Maintain and enhance an expanded and coordinated program that prepares UCSC graduate students to teach. The program will augment and integrate centralized and departmental teaching assistant training efforts and expand the responsibilities of the Center for Teaching Excellence to include service to graduate students as well as faculty, and coordination of these new linkages. By supporting successful TA training programs and helping less-successful efforts to improve, the campus will strengthen the quality of undergraduate education.

#### THE NEXT STEPS: REQUIRING ADDITIONAL ANALYSIS BEFORE ACTION

*For Departments and Divisions:*

Expand opportunities for graduate students to develop and teach their own courses. For example, there might be a yearly competition (at the divisional level) in which third- or fourth-year graduate students would propose a new course. Successful students would then receive one term of support when they taught the course in the following year.

- ▶ *UCSC will foster graduate education via strong financial support and effective graduate student services.*

The problem of fostering graduate education is a national one. In recent times, only about 25 percent of the students who start a Ph.D. finish one, and the median time to completion has risen from about five years in 1968 to about seven years in 1993 (Kennedy 1997). This shift is partly traceable to the change in support patterns for graduate students, and UCSC is no exception. Graduate students should be supported sufficiently to engage in their research, so that they do not need to hold outside jobs. Stability in graduate student support is crucial, so that students know how they will be supported for a year or more at a time.

**We believe that UCSC should strongly and explicitly maintain the goal of training college and university professors for the 21st century.**

**Stability in graduate student support is crucial.**

**Improve use of existing services in the Division of Graduate Studies, including providing information and assistance . . . for graduate research . . . and outreach to potential graduate students.**

**Increase graduate fellowship dollars . . . and . . . establish a graduate endowment.**

THE NEXT STEPS: TO DO VERY SOON

*For Departments:*

Facilitate multiyear offers to improve yield, without requiring more money up front, but rather by judicious forecasting on the basis of current student/fund ratios.

*For Divisional Deans and Departments:*

Develop departmental computer laboratories so that all graduate students have access to up-to-date computers and appropriate software.

*For the Executive Vice Chancellor:*

Increase graduate fellowship dollars to make it possible to offer fellowships to more students, thus improving our yield on offers to top students and providing better support for all students. We recognize that this is expensive, but we regard it as a top priority for the campus.

*For the Division of Graduate Studies:*

Improve the utilization of existing services in the Division of Graduate Studies, including providing information and assistance in securing extramural funding for graduate research, information about campus resources for graduate students, and outreach to potential graduate students.

THE NEXT STEPS: REQUIRING ADDITIONAL ANALYSIS BEFORE ACTION

*For University Advancement:*

Establish a graduate endowment. Endowments that provide the funds necessary to support multiyear offers and fellowships to entering graduate students would introduce greater certainty into the planning process of individual graduate students and their departments, as well as enhance UCSC's competitiveness. Endowments also make it possible for the community to contribute directly to development of graduate programs of particular interest to the region.

## THE PRODUCTION OF KNOWLEDGE

- ▶ *Scholarly research activity at UCSC will continue to be a vital component of the university. This research will serve the public through the creation of new knowledge, the enhancement of teaching, technological innovation, policy recommendations, critical analysis and creative work of all sorts, and the raising of important, even uncomfortable, social issues.*

Research, used here and throughout this report to include creative activity in the arts, is integral to the mission of the university in service to the people of California. According to the “California Master Plan for Higher Education” (1960), the University of California is the “primary State-supported academic agency for research.” The creation of knowledge makes university life rewarding, pleasurable, challenging, and sometimes difficult. The dissemination of this knowledge makes the university visible and useful, establishing it as a vital presence in local, regional, national, and transnational contexts.

However, changes in federal and state sources of funding, proliferation of regulations, and the vagaries of the job market for graduates with advanced degrees all profoundly threaten the research environment at the University of California (UCORP 1996; King, Weiss, et al. 1996; Mitteness and Becker 1997) and at UCSC in particular (Harrington and Haber 1998). It is essential that UCSC develop ways to be competitive for sources of government funding, innovative in identifying and securing new sources of funding, and efficient in administering all funds its faculty can attract.

- ▶ *UCSC will be committed to the development, across the divisions, of top-quality, internationally recognized research programs, will encourage faculty initiatives to build and maintain top programs, and will take risks when the potential rewards are great.*

UCSC has attracted a faculty distinguished by its commitments to high-quality research and to undergraduate and graduate teaching. UCSC faculty in many disciplines, and at every stage of their academic careers, have made substantial contributions to the production of knowledge. Infrastructure and support services at UCSC, however, have not kept pace with changing research needs. As a result, UCSC has developed into a research university in a creative but somewhat haphazard fashion, without the necessary facilities, funding, and administrative structures. In order to achieve world stature as a research university, UCSC must invest more heavily in infrastructure. We must bring our resources and our self-organization in line with what we have already become as we plan for future growth.

Production of knowledge takes place in every discipline, and scholars in every discipline need access to the basic conditions of research: time, funding, and space. At the same time,

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**In order to achieve world stature as a research university, UCSC must invest more heavily in infrastructure. We must bring our resources and our self-organization in line with what we have already become as we plan for future growth.**

**By responding to areas in which individuals and groups demonstrate continuing energy and enthusiasm, rather than attempting a priori to favor some areas of research and disenfranchise others, UCSC will ensure itself a vibrant mix of research and creative activity that reflects the talents and interests of the fullest possible range of its research community.**

research requirements vary enormously across the disciplines. For the sciences, and increasingly in the arts and other disciplines, facilities, space, and specialized equipment are eternally in short supply. Large research projects require substantial investment and occasional risk, but result in significant benefits in external revenue and international recognition. The 1994 WASC Accreditation Report on UCSC noted that “the needs of the humanities and the social sciences, though of far smaller amount than those of the sciences, are in some ways more critical because the external sources are far fewer.” Campus acknowledgment of outstanding research in the humanities, arts, and social sciences is essential.

There is a national trend, and UCSC is no exception (e.g., Mitteness and Becker 1997), for faculty to see a culture of research dominated by projects that receive large-scale funding. Faculty with funding (typically, those in science and engineering) often assert that they are providing opportunity funds for other fields, and faculty without funding (typically, those in the arts and humanities) feel pushed aside in the discourse on research. We stress that the quality of research and its importance to the health of the university are not determined by the amount of funding or by the discipline in which research is conducted. We envision a UCSC in which faculty with significant external funds are proud to contribute to a campus society with outstanding scholars in history, philosophy, literature, the arts, and other underfunded areas, and in which faculty in these underfunded areas acknowledge the outstanding research programs that attract external funding.

We were asked repeatedly whether we intend to name areas of particular research strength at UCSC and target them for favorable resource allocation, or whether we intend to endorse all projects indiscriminately. We reject both of these alternatives (indeed, the very way the question is usually posed prefigures only one intelligent answer, a sure sign that the question should be reframed). We believe, rather, that research priorities must be determined by the research community, individually and in groups, and that UCSC should undertake to provide institutional support that enables faculty initiatives. That is, where clusters of researchers come forward to propose projects and programs in research, appropriate administrative levels should be able to provide seed funding for promising ventures and then to locate likely sources of extramural funding, both public and private. By responding to areas in which individuals and groups demonstrate continuing energy and enthusiasm, rather than attempting a priori to favor some areas of research and disenfranchise others, UCSC will ensure itself a vibrant mix of research and creative activity that reflects the talents and interests of the fullest possible range of its research community.

Research needs, and the means of meeting them, vary from unit to unit. As a result of our consultations, we conclude that the best research support is provided by those most closely involved with a unit in which the research originates. While we recognize that certain functions (financial reporting, certification that federal requirements have been met) are best performed by a centralized unit such as Sponsored Projects, other research support services are best located at the divisional level.

The Academic Senate Committee on Research (COR) is essential for developing a culture of research on the campus. Nearly 50 percent of UCSC faculty receive COR funds for the direct costs of conducting research, and COR funding is significant in the arts, humanities, and social sciences, where the national funding climate is problematic. Enhanced support of faculty through COR will indicate the centrality of the arts, humanities, and social sciences to the university research vision.

THE NEXT STEPS: TO DO VERY SOON

*For the Chancellor and Executive Vice Chancellor, in consultation with the Committee on Research:*

Evaluate whether UCSC should follow all other UC campuses by establishing the position of vice chancellor for research with the objectives of:

1. enhancing the on-campus environment for research in all academic divisions;
2. collaborating closely with University Advancement to develop external support and identify opportunities for research;
3. working closely with the executive vice chancellor and Council of Deans to allocate internal resources that support research;
4. representing the campus in external consultations with contracting and granting agencies;
5. promoting the use of the intellectual and real property of UCSC to support its research and service missions.

*For the Senate Advisory Committee and the Academic Senate:*

Broaden the mandate of the Committee on Research to include assessing the campus environment for research and identifying areas that need to be strengthened. Expand the membership of the Committee on Research by at least 50 percent and provide teaching relief for its chair.

- *Scholarly work is an essential component of faculty activity that enhances the educational environment. UCSC will commit itself to helping faculty members secure the time, financial support, and collaborations to maximize their success in the research and other creative and scholarly activities that provide a vital intellectual life for the university.*

Research brings tangible material benefits to UCSC. At present, extramural awards provide about \$40 million a year in direct costs, \$6.7 million a year in indirect costs (a major source of discretionary funds), 25 percent of all equipment purchases, and approximately one-third of all graduate student support. These benefits are equivalent to the income from student fees and about one-third of the state operating funds allocated to UCSC.

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**Research is a fundamental component of what faculty members do. Knowledge—its creation and dissemination—is what attracts most faculty to the profession.**

**Research is essential to the creation of a vibrant intellectual community, both on the campus and in the wider world. Faculty excitement about research is synergistic with the highest goals of undergraduate and graduate education.**

Research is a fundamental component of what faculty members do. Knowledge—its creation and dissemination—is what attracts most faculty to the profession. Research is essential to the creation of a vibrant intellectual community, both on the campus and in the wider world. Faculty excitement about research is synergistic with the highest goals of undergraduate and graduate education. And yet, the daily demands of university teaching and service, most of which have pressing short-term deadlines, make it difficult for faculty to find the time to conduct their research effectively. Research is not a leisure activity, and research time must be protected.

Increasingly, the production of knowledge across the disciplines requires funding support from external agencies. Individuals at all levels report spending substantial amounts of time crafting and submitting proposals. While conceptualization of such projects will always require personal initiative, a first-rate research university can do a great deal to make the process of grant development easier and to enhance the chances of faculty success. UCSC must develop coordinated and efficient support services that assist faculty in securing funding for research.

UCSC must also endeavor to provide research space in an efficient and flexible manner across the disciplines for laboratories, studios, and interdisciplinary initiatives. We stress that research space and teaching space are not always identical (e.g., in the arts), and that research space must be enlarged when many graduate students are being trained (e.g., in the physical sciences).

THE NEXT STEPS: TO DO VERY SOON

*For Business and Administrative Services, the Associate Vice Chancellor for Research, the Sponsored Projects Office, and the Divisional Service Centers:*

Enhance our capacity for efficient grant administration. UCSC must ensure that the following services are provided in a timely and adequately staffed manner:

- access to a database of funding information appropriate to work in each discipline;
- assistance with proposal development and budget preparation;
- timely report preparation, involving individual consultation with principal investigators;
- cooperation with service centers for grant administration.

*For Department Chairs:*

Allow faculty to designate blocks of time for scholarship. Currently, some departments allow faculty to concentrate their teaching in two quarters, leaving the third quarter for scholarship. Other departments forbid this practice. Such quarters are conventionally called “nonteaching quarters,” but they are more appropriately called “scholarship quarters” (Boyer 1990) for two reasons: (1) this directs attention to the legitimate duty that faculty are fulfilling during the quarter, and (2) many faculty are also supervising graduate and undergraduate students in conducting research during this time. Wherever possi-

ble, departments should plan their course offerings so that faculty who need to do so can devote one quarter per year to research and research supervision, while remaining on campus to contribute to other aspects of campus service.

*For the Executive Vice Chancellor:*

Develop an internal fellowship program for faculty. Many leading universities have centers for advanced study, where faculty compete for internally funded fellowships ranging from one quarter to one academic year in length. The fellowships provide salary replacement, and in some cases an office and other facilities, to facilitate work on major research projects. The establishment and funding of such a program at UCSC will provide support for faculty at critical junctures in their research careers. We suggest that the executive vice chancellor explore funding this program through reallocation of existing resources such as the UC President's Chair. In the medium term, this program should also be a goal of the capital campaign.

*For the Executive Vice Chancellor, in consultation with the Committee on Academic Personnel, the Divisional Deans, and Department Chairs:*

Provide a block of funded research time for untenured faculty well in advance of the tenure review. This opportunity is crucial to the consolidation and presentation or publication of research results. In addition, assistant professors should plan their course and committee responsibilities for the first five years in consultation with their department chairs to ensure that they are on track for promotion without compromising their ability to do research. They should be given a clear message about what their accomplishments should be at each review prior to tenure.

*For University Advancement and the future Vice Chancellor for University Relations:*

Develop and coordinate relations with industry, in collaboration with the associate vice chancellor for research, the divisional deans, and faculty. Interactions with industry are an increasingly vital part of many areas of research at UCSC, especially in the new School of Engineering. When carefully managed, they have the potential to become important as well in areas that do not have long traditions of industry partnership, such as the arts.

*For Planning and Budget:*

Provide an annual report on space allocation to the campus community.

*For the Senate Advisory Committee and the Academic Senate:*

Encourage the Committee on Teaching to allocate funding to support applications in which teaching and research are integrated in the context of the proposed project.

Develop means to coordinate the activities of the Committee on Research and the Committee on Teaching so that they reinforce each other.

**Interactions with industry are an increasingly vital part of many areas of research at UCSC, especially in the new School of Engineering.**

**Implement a plan for one-stop shopping in procuring funding for research. This is a major undertaking.**

THE NEXT STEPS: REQUIRING ADDITIONAL ANALYSIS BEFORE ACTION

*For Deans and Department Chairs in consultation with Department Managers:*

Provide sufficient staff support for research. Regardless of division, department, or physical location of their offices, all researchers should have access to staff support from personnel specifically assigned to such tasks as part of their normal workload. Such personnel may include work-study students, where appropriate.

*For the Executive Vice Chancellor:*

Implement a plan for one-stop shopping in procuring funding for research. This is a major undertaking. We believe that the principal actors are the executive vice chancellor, the Committee on Research, the associate vice chancellor for research, the Sponsored Projects Office, the divisional deans, Business and Administrative Services, and University Advancement. One promising model might be to establish a research office at the level of the division, including the position of divisional (or departmental, in the case of large and heavily funded departments) research officer who reports to the dean. The research officer would work actively with faculty to identify their research needs, coordinate with the development officers to identify sources of private funding, and coordinate with the Sponsored Projects Office to identify sources of government and foundation funding. In addition, the officer would act as a link between the faculty member and the Sponsored Projects Office to facilitate grant administration and reporting requirements, and put faculty in touch with specialists in Sponsored Projects, University Advancement, and the Office of Technology Transfer in Oakland when a faculty invention, gift, or privately funded research project led to complex contract and intellectual property issues.

*For the Executive Vice Chancellor, in consultation with the Committee on Research:*

Increase Committee on Research funding. Such funds may be regarded as seed money for the development of future research proposals. The Committee on Research funds should be freed up for the direct support of research projects, rather than the provision of basic services. Wherever possible, restrictions on the Committee on Research (COR) grants should be eliminated, and COR should consider permitting carryover of remaining balances from one fiscal year to the next so that funds can be used as effectively as possible. The Committee on Research should also be authorized to forward fund Faculty Research Grants.

*For the Executive Vice Chancellor and Business and Administrative Services, with a request for an action plan by mid-October 1998:*

Maintain essential staff support when classes are not in session. Quarter breaks and summers are times when individuals can concentrate on research. Sufficient support services should be provided at those times to support these functions. The lengthy campus closure at Christmas and extensive summer furloughs for staff should be reevaluated with this in mind.



*For the Executive Vice Chancellor and Divisional Deans, with a request for an assessment by early 1999:*

Provide basic services to all faculty, including visiting faculty and postdoctoral researchers. More than two-thirds of the UCSC faculty surveyed in 1996 reported spending significant amounts of their own money on basic research expenses: telephones, fax, computer support and software, e-mail and Internet access, secretarial support, and general research assistance (UCORP 1996). Limited amounts of funding should automatically be provided through the divisional budgets for basic services: copy services, postage, telephone, and other expenses associated with research.

THE NEXT STEPS: TO DO ONCE ADDITIONAL INFRASTRUCTURE IS IN PLACE

*For the Chancellor and University Advancement, in coordination with the Associate Vice Chancellor for Research:*

Set aside venture funding for two kinds of projects:

1. initial development of research initiatives that are likely to result in applications for substantial external funding and/or important intellectual returns to the campus;
2. development of faculty-initiated research that is interdisciplinary and/or interdivisional.

This venture funding could be evaluated on the basis of (1) its success in helping faculty to launch projects that bring in intellectual and material returns, and (2) its ability to find successful projects in the divisions and School of Engineering. Initial funding for this might be obtained from the seed funds sent to the campus by the Office of the President.

Develop matching and transitional funding that can assist faculty whose external grants require matching funds or who need modest amounts of short-term assistance in the transitional period between two grants.

► *UCSC will provide the conditions for intellectual exchange and interdisciplinary practice.*

All fields of intellectual activity have changed in the last 30 years; scholars working in isolation are hardly to be found anywhere. Although travel to field sites and sources is still essential, travel for collaboration and to attend workshops and conferences also is increasingly important. The multidisciplinary, multischolar, team concept of research can only work when excellent means of communication are available.

Intellectual exchange and interdisciplinary practice were both hallmarks of the first years of UCSC. At that time, the colleges, with cross-disciplinary clusters of faculty and active programs of extracurricular intellectual events, were the centers for this activity. For a variety of reasons, this is no longer the case. Faculty report that they find less regular intel-

**All fields of intellectual activity have changed in the last 30 years; scholars working in isolation are hardly to be found anywhere. Although travel to field sites and sources is still essential, travel for collaboration and to attend workshops and conferences also is increasingly important.**

**In addition to enhancing the intellectual role of the colleges, UCSC must also provide other campus venues where intellectual activity across the disciplines can take place.**

**Postdoctoral researchers and visiting faculty play a key role in the intellectual life of the university and should be integrated into departmental activities and campus intellectual life.**

lectual interchange with colleagues here than on many other campuses they visit.

In addition to enhancing the intellectual role of the colleges, UCSC must also provide other campus venues where intellectual activity across the disciplines can take place. This is important not only for the general environment for intellectual life on this campus, but also because, increasingly, scholarly activity has come to depend less on lengthy sabbaticals than on intense moments of interchange and cooperation. Pauline Yu (1997), dean of humanities at UCLA, recently echoed David Damrosch's call "for an emergence from the individualist isolation of disciplinary enclaves that have become entrenched since the beginning of this century into a culture of cooperation, a community of small-scale research groups and team-taught courses to overcome the limits of specialization." UCSC must support places where such cooperation is already taking place on campus as well as develop new ones.

Postdoctoral researchers and visiting faculty play a key role in the intellectual life of the university and should be integrated into departmental activities and campus intellectual life.

THE NEXT STEPS: TO DO VERY SOON

*For the Executive Vice Chancellor, in consultation with the Committee on Research:*

Increase and provide more flexible funding for faculty to attend conferences and workshops. Funds administered through the Committee on Research currently allow \$500 for one conference per year, with many restrictions (and no per diem expenses). Most faculty need to attend multiple conferences to remain current, active, and visible in their fields.

*For the Executive Vice Chancellor and the Divisional Deans:*

Guarantee stable funding for interdisciplinary centers that support research and scholarly exchange.

*For University Advancement, in coordination with the Office of Public Information:*

Assign development/outreach officers to work closely with faculty members to target specific, appropriate opportunities to promote individual research and teaching missions. This would include applications for funding, as detailed above, but might also entail carefully planned public lectures or guest editorials on topics that touch upon the research field. Such promotional work will be acknowledged by the university as part of the endeavor of research, as well as a form of service to the community.

#### THE NEXT STEPS: REQUIRING ADDITIONAL ANALYSIS BEFORE ACTION

*For the Associate Vice Chancellor for Research and the Dean of Graduate Studies, with a report by June 1999:*

Establish administrative and funding mechanisms that support cross-departmental and cross-divisional research and graduate training.

*For the Chancellor, the Executive Vice Chancellor, the Academic Senate, and University Advancement:*

Create a permanent building, such as a University Club, where faculty and staff can gather for intellectual and social interchange.

*For the Executive Vice Chancellor, in consultation with the Associate Vice Chancellor for Research, the future Vice Chancellor for University Relations, and Business and Administrative Services:*

Expand the operations of the university Conference Office so that it can (1) assist faculty in hosting funded academic conferences at UCSC by coordinating housing, food services, meeting facilities, and transportation; (2) enable UCSC to host national and international scholarly meetings. Consider moving the Conference Office to a unit on campus where it could coordinate closely with academic programs and be able to access all campus services.

#### THE NEXT STEPS: TO DO ONCE ADDITIONAL INFRASTRUCTURE IS IN PLACE

*For the Executive Vice Chancellor:*

Consider creating an on-campus facility to house visiting scholars and researchers.

► *UCSC will maintain an excellent library and an outstanding information and communication infrastructure.*

Imagining the library of the future is a UCSC tradition, but detailed speculation runs the risk of making us look quaint and faintly ridiculous. “A Provisional Academic Plan for the Santa Cruz Campus, 1965–1975,” which was presented to the UC Regents in November 1962, imagined that as the UCSC campus grew, a network of pneumatic tubes would be necessary for quick delivery of materials to far corners of the campus. “No pneumatic tubes” has been a shorthand way of reminding ourselves of the dangers of excessive specificity.

Yet even if we do not know with precision what the library of the future will look like, we know that UCSC needs a good one. This is a significant challenge. The library spends \$1 million annually for natural science journals, two-thirds of the total serials budget. This

**Even if we do not know with precision what the library of the future will look like, we know that UCSC needs a good one.**

**Efficient and effective sharing of high-level computing technology and laboratory facilities should be encouraged across the UC system.**

**Computers fulfill both instructional and research needs, and UCSC should strive to support both basic-level infrastructure and cutting-edge research needs.**

has affected the entire collection, not just the sciences. In addition, the process of format substitution (digital for print, CD for audiotape) has been expensive. The volume of information is growing rapidly, but much of it is “published” in ephemeral form, requiring that libraries devise ways to trap it while it is available.

The library remains a fundamental tool for instruction and research. It must provide support for the research needs of the faculty, including access to current journals and online services, and training in Web-based research. Acquisition and maintenance of print collections continue to be crucial, although these may be specialized systemwide with easy access across UC campuses. The library must have adequate funding for focused acquisition of materials in conjunction with academic programs. Faced with explosions in the production of print and electronic material, as well as unstable budgets, it is essential that UCSC continue to push for efficient sharing of resources across the UC system, as well as improved access to other systems.

Computing is an essential part of contemporary academic life, and computing equipment is a consumable item that needs to be renewed. All faculty members require an up-to-date computer, suitable software, network access, and adequate support for set-up, training, maintenance, and upgrade services. Computers fulfill both instructional and research needs, and UCSC should strive to support both basic-level infrastructure and cutting-edge research needs. Efficient and effective sharing of high-level computing technology and laboratory facilities should be encouraged across the UC system. Customized training and support services should be made available to faculty who are conducting research.

THE NEXT STEPS: TO DO VERY SOON

*For the Associate Vice Chancellor for Planning and Programs, the Deans, and the Campus Academic Planning Council:*

Consider library resources and expertise in external reviews of departments.

*For Divisional Deans and Department Chairs:*

Consider the impact of new academic programs on the library when such programs are in the preliminary planning stages.

*For the Executive Vice Chancellor and the Divisional Deans:*

Develop a campuswide computing initiative to provide a set amount of funding per faculty member per year for computer upgrades, as recommended in October 1997 by the chairs of the Committee on Research and the Committee on Planning and Budget. The Committee on Computing, in consultation with Communications and Technology Services, the Committee on Planning and Budget, and the Committee on Research should define, and periodically review, a baseline amount of funding for computing equipment and upgrades for all faculty.

*For the Executive Vice Chancellor, the Divisional Deans, and Business and Administrative Services:*

Clarify the division of labor between Communications and Technology Services and divisional computing units with respect to faculty computing needs, to assure that all divisional computing units have the capability to provide faculty with the appropriate range of hardware, software, and consulting for both research and instruction.

*For the Library staff:*

Continue and strengthen the role of librarians in instructing faculty and students on changing research tools, particularly online tools, and in evaluating the material obtained using those tools.

Actively educate the campus community on the changing capabilities of the library and the resource requirements that flow from those changes.

THE NEXT STEPS: REQUIRING ADDITIONAL ANALYSIS BEFORE ACTION

*For the Executive Vice Chancellor, the Divisional Deans, and the University Librarian:*

Begin active discussion and careful outlining of academic-unit needs for library materials and resources, particularly with respect to the proposed TEAM (Technology, Electronic Access, and Media) Center, including a centrally located Arts Gallery

THE NEXT STEPS: TO DO ONCE ADDITIONAL INFRASTRUCTURE IS IN PLACE

*For the Chancellor, in coordination with University Advancement and the University Librarian:*

Move ahead expeditiously with the TEAM Center, which will house parts of the expanding collection, additional technical resources, space for users of digital media, and staff.

*For the Executive Vice Chancellor, the Divisional Deans, University Advancement, the Committee on the Library, and the University Librarian:*

Examine, as part of the start-up process for new faculty, the inauguration of new serial subscriptions and a permanent increase of the collections budget to continue those subscriptions.

Develop an initiative to provide a set amount of funding each year to upgrade technical resources (computer hardware and software) used by library patrons.

*For the Executive Vice Chancellor, the Divisional Deans, University Advancement, and Communications and Technology Services:*

Consider establishment of a faculty development center for information technology, where high-end resources for research and instructional use that are too expensive for smaller departments to purchase could be shared.

**Consider establishment of a faculty development center for information technology, where high-end resources for research and instructional use that are too expensive for smaller departments to purchase could be shared.**

**Ivory towers are not likely to thrive in the next century . . . external service and partnerships must be a key part of our social engagement.**

**UCSC should engage in partnerships with all the relevant constituencies of the region.**

## THE APPLICATION OF KNOWLEDGE

- ▶ *UCSC students, staff, and faculty will contribute to society through long-term, engaged partnerships—with elementary and secondary schools, community colleges and universities, business, alumni, government, community, environmental, and international organizations.*

UCSC affirms its commitment to sustained, engaged service to local, regional, national, and international constituencies. In this context it may be time to reevaluate one of our cherished tropes, that of UCSC as the “City on a Hill.” In the Gospel of St. Matthew (5:14) Jesus says to the assembled crowd: “You are the light of the world. A city on a hill cannot be hid”; this follows the Beatitudes in the Sermon on the Mount. Subsequently, the Puritans adopted the phrase “City on a Hill” from a sermon delivered by John Winthrop, first governor of Massachusetts. The Puritan notion was to define their new settlement not in terms of activism and service to the world, but rather as a utopian example for the rest of the world to look upon and follow. It is, in many ways, a prescription for the ivory tower. However, ivory towers are not likely to thrive in the next century, and we are confident that UCSC should not be one. External service and partnerships must be a key part of our social engagement.

Long-term commitment to such partnerships is essential. Examples of sustained commitment to date include the Monterey Bay Education, Science, and Technology Center (MBEST), and the expansion of University Extension (UNEX) activities on both sides of the Santa Cruz Mountains. To strengthen the educational system from kindergarten through college, UCSC has launched two related efforts: the Chancellor’s Educational Partnership Advisory Council (CEPAC) coordinates efforts on campus, while the Monterey Bay Educational Consortium (MBEC) brings together all public educational institutions in the Monterey Bay region. Together, CEPAC and MBEC have launched the Passport-to-Education, a major regional effort to increase the diversity of college-eligible students. With its involvement of families, schools, businesses, government agencies, religious, recreation, and youth organizations, community colleges, and universities, this project provides a model of university-community partnerships.

UCSC should develop and enhance partnership organizations across our region. Silicon Valley, for instance, is one of the nation’s most dynamic areas of job growth, technological development, and new forms of business organization. It is also the site of widening inequalities, rapidly changing demographics, and new forms of local solutions to educational and other challenges. It is the center of Internet technology, venture capital, and business networking. San Jose is the site of one of the best job-training programs in the country, one of the most admired and forward-looking labor movements, and many dynamic community-based organizations.

UCSC should engage in partnerships with all the relevant constituencies of the region,

including business and technology through our Engineering School; educational systems through K–12 outreach and coordination with institutions of higher education; unions, community-based organizations, and emerging communities through our faculty research, student field studies/internships, and UNEX; and agricultural producers through our programs in agroecology, environmental studies, and other appropriate units.

Alumni are a special resource for campus partnerships: They recognize the uniqueness of their experience here, and they view their UCSC education as critical to their success. The campus should seek to engage the widest possible community of alumni.

Because international issues are increasingly prominent in most scholarly, commercial, and professional pursuits, new forms of global/international collaboration will be essential. These include enhanced opportunities for international student and faculty exchange, and transnational partnerships between UCSC faculty and foreign scholars and institutions. The Education Abroad Program (EAP) is a key resource for developing global partnerships for UCSC. Access to and support of EAP functions on the UCSC campus should be an integral part of the academic program.

#### THE NEXT STEPS: TO DO VERY SOON

*For the Associate Vice Chancellor for Planning and Programs and the Associate Vice Chancellor for Undergraduate Education, in consultation with Academic Departments and the Colleges:*

Improve coordination of student internships and create more such internships. Our wide variety of field-study programs on campus should be consistently publicized, and local/regional placements should become even more important. We should explore long-term and full-quarter placements and maintain sustained relationships with internship providers.

*For the Alumni Council, University Advancement, and the Director of Admissions:*

Encourage the wider involvement of alumni in collaborations, including student internships in alumni-run organizations and alumni involvement in recruiting and admissions.

*For the Chancellor, the Vice Chancellor for Student Affairs, and the Director of Admissions:*

Continue admissions outreach efforts to communities historically underrepresented on the UCSC campus, at both the undergraduate and graduate level. Many of these efforts are inventoried in CCCC (1997); UCSC should reaffirm its commitment to these initiatives and assure that they are adequately funded and staffed.

*For the Executive Vice Chancellor and the Committee on Academic Personnel:*

Strengthen incentives in funding, release time, and the definition of “service” in personnel reviews for faculty to collaborate in strengthening K–12 schools.

**The campus should seek to engage the widest possible community of alumni.**

**Because international issues are increasingly prominent in most scholarly, commercial, and professional pursuits, new forms of global/international collaboration will be essential.**

**Research enriches the intellectual life of the wider community through lectures, performances, and discussion forums on and off campus.**

*For the Senate Advisory Council and the Executive Vice Chancellor:*

Broaden the charge of the Academic Senate Education Abroad Committee to provide academic oversight of the Education Abroad Program and International Programs, and to promote and develop programs for international education and exchanges. This committee should serve as an advisory committee for the identification and coordination of opportunities for global and transnational education collaboration, as well as international education planning and policy. It should cooperate with CEP, the Committee on Planning and Budget, and the Graduate Council in determining effective allocation of resources for the Education Abroad Program and International Programs.

*For the Vice Chancellor for Student Affairs, in consultation with Academic Departments and Programs:*

Develop partnerships with high schools and their feeder schools. Such partnerships should move beyond single-project orientation to sustained engagement. UCSC has made promising initial efforts in identifying and establishing relationships with six high schools in our five-county region, as a means of achieving a demographically diverse student body by increasing academic achievement and developing UC eligibility in students from economically and socially disadvantaged communities. These efforts, and others such as the ongoing work of the Central California Writing Project and the Monterey Bay Area Mathematics Project, should be given high priority and expanded as appropriate.

THE NEXT STEPS: REQUIRING ADDITIONAL ANALYSIS BEFORE ACTION

*For Transportation and Parking Services:*

Explore the establishment of a regular two-way bus service between the San Jose metro center and the UCSC campus. This would make the campus more accessible to San Jose students who live at home; it would also allow faculty and students to travel from UCSC to San Jose for meetings, internships, and other activities.

- ▶ *UCSC will be committed to generating knowledge that is useful to the wider society, making that knowledge accessible to the public, and involving the academic community in direct service to society.*

Research is a form of service to the community, provided that it is made accessible. Research enriches the intellectual life of the wider community through lectures, performances, and discussion forums on and off campus. It contributes directly to informed and high-quality policy discussions. Public policy research can be as useful and challenging as “basic” research—and it is often more appreciated by the state and community constituencies.

Universities, of course, do not have a monopoly on the production of knowledge. Bender (1997) writes, “We must acknowledge the inherent value of multiple sites and styles of



knowledge production. That implies a continual renegotiation of our relation to our society and to that society's many and diverse habitats of knowledge." What a university can do—what UCSC should do—is to create an environment where knowledge is not only generated, but collected, focused, critically examined, evaluated, refined, and disseminated.

#### THE NEXT STEPS: TO DO VERY SOON

*For the Associate Vice Chancellor for Planning and Programs, the Vice Chancellor for Student Affairs, and the Dean of University Extension:*

Continue to explore the use of distance-learning technologies for outreach, with attention to our areas of curricular strength and to the diverse communities that might benefit from access to distance learning. The experience of UNEX in developing distance learning may be useful to other campus units.

*For the Associate Vice Chancellor for Research and the Divisional Deans, in coordination with the Office of Public Information:*

Establish and expand off-campus lecture series by faculty and other university personnel. The highly successful downtown Humanities Lecture series is a prototype for such activity; similar activities should be developed in the south county area.

Encourage policy-oriented research and make the results available. Ongoing policy research should be featured in press releases and made available to decision makers.

*For the Executive Vice Chancellor, the Divisional Deans, the Vice Chancellor for Student Affairs, and the Council of Provosts:*

Strengthen curricular and extracurricular programs that increase awareness of cultural, ethnic, and gender diversity.

*For the Executive Vice Chancellor, the Divisional Deans, and Department Chairs:*

Emphasize recruitment of a diverse faculty. Our goal should be to increase representation of all underrepresented groups across the disciplines. We should widely circulate the best ideas for faculty recruitment gathered from department affirmative action plans. Divisions should cosponsor with the Committee on Affirmative Action a spring meeting to discuss successful outreach strategies with potential search committee chairs.

#### THE NEXT STEPS: REQUIRING ADDITIONAL ANALYSIS BEFORE ACTION

*For the Chancellor:*

Consider the establishment of a retreat center for the training of lawmakers, other public officials, and community leaders, making use of both our natural setting and our faculty resources; this would also help place our students in internships and employment.

**What a university can do—what UCSC should do—is to create an environment where knowledge is not only generated, but collected, focused, critically examined, evaluated, refined, and disseminated.**

**Wherever we can,  
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tive structures.**

**We stress the  
importance of  
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## THE WORKING ENVIRONMENT

The service component of UCSC's mission includes:

- academic service—the way faculty govern themselves and participate in the governance of the institutions, as well as the way in which faculty render professional service to their respective disciplines (via leadership in organizations, reviews, etc.);
- campus service—the way that the administration of the university is organized to facilitate the accomplishment of our objectives, and the way faculty and administrators work to make the campus a learning community that meets the needs of students and works well for them;
- community service—the way in which the university (students, faculty, staff, and administration) interacts with the local and regional community as a partner in various efforts, with such service helping to make us a valued institution.

With respect to academic service, we stress the importance of shared governance on the campus. With respect to campus service, our emphasis is on making the university more responsive and more able to respond to emerging opportunities and to ensure that we create a community where students, staff, and faculty feel valued, and care about education and the university in return. This suggests that wherever we can, we should seek to streamline and simplify administrative structures; moreover, administrative structures should be very “transparent” and very focused on accomplishing our goals. With respect to community service, our goal is to create long-term engaged partnerships. Thus, we must create and sustain relationships with several key groups.

We understand the need to have a positive relationship with both the city and county of Santa Cruz, particularly since this is the immediate environment for our students, staff, and faculty. We have a large and positive impact on this area; where we cause strains and problems, we should help to manage the challenges.

However, our service area extends beyond these boundaries. More attention needs to be paid to being a great regional university. UCSC will continue to build a stellar national and international reputation. But even the best universities in the country have particular relationships with their local regions, providing policy advice and placing students in employment.

► *UCSC will sustain academic innovation, excellence, and vitality through shared governance.*

Cole (1994) identified governance as the first dilemma facing research universities. Shared governance is part of the history of the University of California. In 1920, the Regents delegated powers to the Academic Senate including control over conditions of admission, authorization and supervision of all courses and curricula, establishment of

graduate requirements, and advice to the administration on libraries and the budget. Shared governance is further defined in Standing Order 105 of the Regents:

#### 105.2 Duties, Power, and Privileges of the Academic Senate.

- (a) The Academic Senate, subject to the approval of the Board [of Regents], shall determine the conditions for admission, for certificates, and for degrees other than honorary degrees....
- (b) The Academic Senate shall authorize and supervise all courses and curricula offered under the sole or joint jurisdiction of the departments, colleges, schools, graduate divisions, or other University agencies approved by the Board, except [various exceptions listed]....
- (d) The Academic Senate is authorized to select a committee or committees to advise a Chancellor concerning a campus budget and to select a committee or committees to advise the President concerning the University budget.
- (e) The Academic Senate shall have the right to lay before the Board, but only through the President, its views on any matter pertaining to the conduct and welfare of the University.

Currently, shared governance is exercised through participation in the Academic Senate and service on its key committees, including Academic Personnel, Educational Policy, Planning and Budget, Privilege and Tenure, Affirmative Action, Faculty Welfare, and the Graduate Council. Though time-consuming, shared governance has brought many benefits to the university, and it is a tradition we are eager to see passed down and strengthened in the next generation of faculty at UCSC. However, we ask the senate to examine carefully the ways in which faculty are asked to serve on these committees, and to consider whether and which other committees are necessary.

We promote the concept of one university unified by representation through the Academic Senate and administrative structures, and we stress the importance of partnership between senate faculty and administration. Serving in the departmental, college, or central administration should be considered an honor, and our best colleagues should be appointed.

#### THE NEXT STEPS: TO DO VERY SOON

##### *For the Academic Senate:*

Consider the establishment of a representative assembly. In the UC system, only UCB and UCSC have nonrepresentative Academic Senates. In a representative Academic Senate, departmental representatives would take the responsibility of senate preparation, mandatory attendance, and reporting back to the department. Advantages might include reduced demands on the time of other colleagues, a means for nurturing younger colleagues in the notion of senate service, and a senate in which more viewpoints are consistently represented.

**Though time-consuming, shared governance has brought many benefits to the university, and it is a tradition we are eager to see passed down and strengthened in the next generation of faculty at UCSC.**

**Effective organizations take stock of their current situation, set goals for themselves, and allow themselves time to achieve those goals before redefining them.**

*For the Committee on Committees:*

Minimize the effects of committee turnover. All committees should be designed to maximize overlap of membership and avoid situations in which committees have to learn what to do and how to do it from scratch each year.

*For the Senate Advisory Council:*

Encourage more participation in the Academic Senate, and seek to understand why there is a noticeable lack of participation by more recently hired faculty.

Enhance communication among senate committees.

**We urge that (challenges) be met via an active and flexible intermediate planning process, as well as effective senate and administrative committees.**

THE NEXT STEPS: REQUIRING ADDITIONAL ANALYSIS BEFORE ACTION

*For the Senate Advisory Council and the Executive Vice Chancellor:*

Streamline committee structures and develop closer links between Academic Senate and administrative committees.

- ▶ *UCSC will enhance administrative nimbleness by establishing academic and programmatic priorities, using resources strategically to create and respond to new opportunities, and adjusting priorities as external conditions change.*

THE NEXT STEPS: TO DO VERY SOON

*For the Chancellor:*

Declare a moratorium on overall strategic planning for the next seven years. Effective organizations take stock of their current situation, set goals for themselves, and allow themselves time to achieve those goals before redefining them. We are confident that the next decade, with its anticipated growth toward 15,000 students, will present unforeseen planning challenges of all sorts. But we urge that they be met via an active and flexible intermediate planning process, as well as effective senate and administrative committees.

*For the Chancellor, the Executive Vice Chancellor, and the Campus Academic Planning Council:*

Strengthen the intermediate planning process. The Campus Academic Planning Council (CAPC) is charged with intermediate-range planning and decision making on new initiatives. Our consultations suggest that CAPC has often played the role of reviewer rather than initiator. CAPC should look for areas of synergistic activity across the departments and divisions.

## THE NEXT STEPS: REQUIRING ADDITIONAL ANALYSIS BEFORE ACTION

*For the Chancellor:*

Create a strategic venture fund. Within the agreed-upon priorities set by the campus, UCSC must be able to respond quickly to opportunities. We suggest the creation of a strategic venture fund that can be deployed to seed new efforts as part of the planning process. We also suggest that some portion of this fund be set aside to respond to opportunities as they come up during the academic year, perhaps at the discretion of the deans or CAPC.

- ▶ *UCSC will encourage excellent management practices that foster good communication among staff, faculty, and students.*

UCSC relies on the support and contribution of staff to achieve our mission. We must make informed and judicious decisions about how to allocate staff time and resources. Establishing an environment where staff can operate effectively also requires that we reward good decision making at every level. Elements of good decision making include creativity, innovation, responsiveness to changing circumstances, the identification and promulgation of best practices, and the willingness to take risks that are consistent with the values of the institution.

## THE NEXT STEPS: TO DO VERY SOON

*For the Assistant Chancellor for Human Resources:*

Actively promote recruitment of a diverse staff. In addition to its many intrinsic benefits, a diverse staff is also key to attracting and retaining a diverse student body. Staff Human Resources is engaged in an effort to increase the effectiveness of staff outreach programs; UCSC should give this effort high priority.

Develop guidelines and rewards for good staff decision making.

Strengthen training programs for supervisors at all levels, with a focus on developing essentials of good leadership: the ability to articulate a vision, to inspire and motivate staff to be committed to a common goal, and to provide support so that staff can perform effectively, especially during periods of rapid change.

Provide promotional opportunities and training for all staff. In its consideration of staff career development, CCCC 1997 (pp. 28–30) noted that “[Staff] Human Resources should simplify campus policies and procedures and develop guidelines and programs to maximize the opportunities for staff to learn new skills, try new jobs, and move more easily (via transfer, promotion, temporary assignments, or internships) through positions with different job duties.”

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**Actively promote recruitment of a diverse staff. In addition to its many intrinsic benefits, a diverse staff is also key to attracting and retaining a diverse student body.**

**Staff should be routinely consulted about initiatives that require their participation or affect their workload, and their input should be crucial in evaluating the success of such initiatives.**

**We must strive for civility and professional behavior in our interactions; we must be respectful of a diversity of opinions.**

*For the Chancellor:*

Enhance communication across units. We should encourage events such as this year's leadership convocation for administration and staff, allowing more time for sharing solutions. Consider similar events for faculty that cut across departmental and divisional units and address issues central to the faculty's mission of teaching, research, and service.

*For the Chancellor's Staff Advisory Committee and Managers at all Levels:*

Seek input from staff at all levels, particularly "front-line" staff. Staff workload will increase with growth, and this change must be planned and provided for in a careful manner. Staff should be routinely consulted about initiatives that require their participation or affect their workload, and their input should be crucial in evaluating the success of such initiatives.

Encourage appropriate decentralization, and provide appropriate resources to support it. Decentralization should make us more nimble and responsive so that we should always seek the most effective level for decision making, even if at times it increases costs to do this. To ensure that decentralization does not result in a proliferation of tasks for already overburdened staff, resources should be "downstreamed."

*For the Vice Chancellor for Business and Administrative Services:*

Continue to streamline business practices. Review and eliminate nonessential internal administrative reporting requirements and unnecessary meetings, and simplify approval processes.

► *UCSC will be a respectful community that requires its members to treat one another in an ethical, supportive, and sensitive fashion.*

In a complex and growing university community, tensions are unavoidable. As the CCCC (1997) notes, we must "harness ... differences for creative ends. Such a task is by no means easy. A university community should not be a smooth, seamless structure. It has sharp edges, both intellectual and social, that can be good for the community if we know what to do with them." However, we must strive for civility and professional behavior in our interactions; we must be respectful of a diversity of opinions (UC Campus Community Task Force 1993). Consensus is not always possible or desirable; democratic practice should be our goal.

All campus organizations should strive to be supportive as well as efficient. Students report that some offices treat them with great efficiency but do not fully understand the stresses and strains students face. Discussion of course scheduling, financial aid, and other matters must be handled with appropriate care.

UCSC will increasingly draw part of its student body from among older, nonresidential students with job and family responsibilities. Such students may learn at off-campus sites and may have special needs for child care and scheduling flexibility. UCSC must welcome these new students with supportive services.

As the campus becomes larger and more diverse, we must seek better ways of sharing information and airing community differences. A frequently published, widely distributed, easily accessible community newspaper, available both in hard copy and online, would enhance such communication.

#### THE NEXT STEPS: TO DO VERY SOON

##### *For Administrators and Managers at all levels:*

Consult sectors of the community that will be affected by a decision as part of the decision-making process.

Develop skills in diversity management among faculty and staff. Include ability to encourage and support a diverse working environment (e.g., the classroom, the office) as a criterion in teaching evaluations and administrative performance evaluations. Where appropriate, provide training in conflict resolution and negotiation skills for students, staff, and faculty.

##### *For the Chancellor and the Executive Vice Chancellor:*

Create a child development facility on the UCSC campus. Move expeditiously to implement the plan for this facility.

##### *For the Executive Vice Chancellor, the Divisional Deans, and the Assistant Chancellor for Human Resources:*

Provide effective assistance in locating possible employment for partners of university employees, both on-campus and in the wider community.

**As the campus becomes larger and more diverse, we must seek better ways of sharing information and airing community differences.**

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