INTRODUCTION: Description and Overview of the Program

The PhD in Design and Planning at the University of Colorado is a research oriented degree offered by the College of Architecture and Planning (CAP) at the University of Colorado Denver. Initiated in 1997, the program is dedicated to the education of future architects, landscape architects, and urban planners who are intellectual leaders, and who have a critical understanding of the social, political, and global conditions that influence their profession. It is the intent of the program to prepare the students to excel in the planning and design of built environments through the incorporation of intellectual, analytical, and integrative aspects of the involved professions. Within this context, students and faculty seek to creatively shape the built environment and understand it in relation to institutional, political, economic, social, and natural environments.

The program is extremely diverse in its offerings—from architectural criticism to environmental modeling and beyond—and the cross-disciplinary training is a hallmark of the professions it serves and the program itself. Its mission is to provide students with a research foundation for addressing pertinent issues in the built environment. Distinguishing characteristics are (a) the physical environment as the domain of interest, (b) its interdisciplinary and integrative orientation, and (c) its applied nature. The PhD in Design and Planning at the University of Colorado is a research-oriented degree offered by the College of Architecture and Planning (CAP) at the University of Colorado Denver.

One of the strengths of the College of Architecture and Planning PhD program is that students can take advantage of resources in all departments and fields in the College and elsewhere in the university. The program is a unique, joint program in which students may choose to focus in Architecture, Planning, or Landscape Architecture, or work in any combination of these disciplines. Interdisciplinary study and cross-disciplinary inquiry occur in a congenial work environment, drawing upon a wealth of faculty and resources in a range of campus units. The main mission of the program is to provide a foundation for scholarship in planning and design drawing from scientific, critical, historical, and creative modes of inquiry. The PhD degree in Planning and Design is appropriate for those seeking careers in research and teaching or in roles in government or professional consultation, all of which require a research specialization. So far, over 40 graduates of the program have gone on to faculty positions at universities in the United States and elsewhere, post-doctoral work, and into private consulting, nonprofit organizations, and the federal government.

Admission to the program is competitive and based on merit and available funding for research projects relevant to the central initiatives in the program. Excellent academic performance, references, and GRE scores are prerequisites. In the first two years of residence, students take courses to satisfy the requirements of a major and a minor field of study and the core requirement of the program, as well as additional electives. The minimum residency requirement is four semesters, not including summer semesters. The first major step in their progress through the program is the completion of the course work required by the candidate’s selected major and minor fields of study. The second major step is the comprehensive examinations in the selected major and minor fields of study. After satisfying program requirements, students move on to preparing a thesis topic and research proposal which is presented and defended in a public event. With the successful defense of the thesis topic and research proposal, students are admitted to candidacy. Finally, the completed thesis is defended in a public examination involving external examiners in addition to the members of the committee. Upon successful completion of the thesis defense the program recommends the awarding of the PhD degree.

PhD Strategic Vision

1. University of Colorado Denver Mission Statement:

*CU Denver is a diverse teaching and learning community that creates, discovers and applies knowledge to improve the health and well-being of Colorado and the world.*

This mission statement frames the program’s commitment not just to teaching our students but also to their learning as part of a community. It emphasizes the educational richness that our faculty believe comes from diversity of thought and experience. It also emphasizes that the creation and discovery of knowledge must, where appropriate, be applied to the needs of communities and society, including their
health, general well-being and quality of life. It emphasizes that we seek not only to be seen as a world-class university but also to have a profound impact throughout Colorado and the nation by our service activities.

The Doctoral Program in Design and Planning, one of just a handful on CU Denver's Downtown Campus, addresses this objective head-on, aiming above all to nurture the societal wherewithal to create and sustain viable “built” environments in which to accommodate the world’s burgeoning populations throughout the 21st century. This is, of course, a challenge in multiple dimensions since these places—largely urban places—are both internally complex and geographically diverse. Our focus is substantially though not entirely upon the processes that shape these environments—across a continuum from single buildings through the scale of metropolitan conurbations. At the same time, an aspect of our Program stands apart from the realms of instrumental knowledge. There we examine the historical processes and associated iconographies that shape contemporary aesthetic temperaments, urban expectations, and spatio-environmental sensitivities. These subjects are a fit focus for some part of our programmatic effort, not only because the past is intrinsically interesting and often instructive, but also because the culture of cities and of material (both built and natural) environments more generally is an historical accumulation momentarily expressed in the shape, appearance and function of the places we occupy and enjoy.

At base we examine how and to what end these places and spaces actually evolve, as well as how they might better progress towards efficacious forms. Such form-based outcomes, of course, are not primarily ends in themselves. Rather we must judge these with respect to many diverse performance criteria associated with matters so varied as material efficiencies, economic viability, aesthetic consequence, ease of interaction, social cohesion, and the accommodation of the many distinctive social constituents (families, workers, social groupings, vulnerable cohorts such as the young, the old, the disabled and so on) that populate these places. And of course, urban environments must be healthful, a condition achieved through the removal, avoidance or mitigation of contaminants, the cultivation of active living practices at all ages, and equitable access. In its focus on the environments that people occupy, utilize and enjoy, our PhD Program addresses the substances of health and well-being through design thinking and planning interventions in the construction and evolution of both the built and natural environments.

2. University of Colorado Denver Vision:

By 2020, CU Denver will be a leading public university with a global reputation for excellence in learning, research and creativity, community engagement and clinical care.

This vision statement is not modest. Our institution has bold ambitions on behalf of the people of Colorado. We want them to have a leading public research university that has earned a global reputation for four interconnected cornerstones of excellence: teaching and learning, research and creativity, community engagement, and clinical care. Our PhD accepts this challenge and seeks to be a program at the forefront of this quest by our institution.

The Doctoral Degree in Design and Planning is above all a research degree. In this sense it is similar to most but not all others. However, the subject of our research resides at the interface of thought and action—praxis—and this sets us apart. Our divisions of intellectual labor, though, are not perfectly coterminous with these pursuits. Some focus primarily on the theories of architecture, landscape, and planning, others upon specific modes of intervention, that is, upon action. Still others, focus upon the integration of these two, often through direct community engagement yielding insights that carry back into these other intellectual universes. We aspire to have a truly global reach, one attained through the reputation of our scholars and their scholarship, through the impact on the ground of our ideas, and through the career trajectories of our graduates. We aspire to nothing less than to be deserving of national esteem on the part of our peers, and global recognition of our capacities to help solve some of the most vexing challenges of 21st century urbanism. Of clinical care, something more must be noted. This term generally tends towards the delivery of health services, an expertise of the Anschutz campus, so it is in a sense peripheral to our main intellectual thrust, but our faculty feel clinical care can be considered more than the specific treatment of biological, social or psychological maladies. Associated with the term is a consideration for wellness life practices that ward off health problems, the technological and social infrastructures of health care delivery systems, and more. The expertise and research interests of our faculty are poised to address certain of these issues as well.
3. PhD. Program Values:

To be a university greater than the sum of its parts, CU Denver embraces excellence in:

**Learning and Scholarship**
CU Denver respects academic freedom and the rigorous quest for knowledge and understanding. The Program shares knowledge and fosters student success through a continuous process of inquiry, critical thinking, reflection, collaboration and application. Our faculty have a varied and broad-ranging expertise which accommodates multiple paradigms of scholarship, across several inter-related disciplines, all attuned to the relevant professions: Architecture, Urban and Regional Planning, Landscape Architecture, and historic preservation. We aspire to support our students and furnish them with the skills necessary to develop rigorous well research insights into the pertinent issues that drive these professional fields, and to nurture reflective (thoughtful, empathetic, knowledge-driven, and evidence-based) practice.

**Discovery and Innovation**
CU Denver fosters an energetic, collaborative and creative environment where we develop and employ new ideas and technologies. Our entrepreneurial culture enables us to expand the frontiers of knowledge and human experience. The Doctoral Program in Design and Planning aims to achieve this result through the integration of education and scholarship achieved substantially though not entirely through Program linkages with our College’s Research Initiatives: Emerging Practices, Enduring Places, and Engaged Communities. These connections are also forming with specific research centers and areas of focus such as PRAXLAB: (Emerging Practices), The Colorado Center for Community Development (CCCD), Center of Preservation Research (CoPR), and Center for Advanced Research in Traditional Architecture (CARTA). Each of these is a corridor of intellectual movement both to and from the world beyond the university, and a conduit for the definition of problems and challenges, and for the pursuit of solutions. Each is also a venue for scholarly deliberations, and an orchestrator of the research enterprise. Many of our PhD students work in these centers to gain for the real world engagement so necessary in connecting the academic enterprise to problems faced within in the greater community.

**Diversity, Respect and Inclusiveness**
CU Denver seeks the richness that an increasing diversity of our communities brings to our learning and research endeavors. Our common humanity leads us to create an inclusive and respectful ethos characterized by caring, empathy, compassion, nurturing, collegiality and mentoring. To match the diversity valued in the variety of research agendas that the program engages in its quest for a significant and global reach, both in terms of geography and design purview, the program activity recruits and accepts individuals of diverse culture from around the world. Our current and past PhD student body has come from all the continents worldwide at many different points in their career.

**Citizenship and Leadership**
CU Denver serves Colorado and the world as a recognized source of talent, knowledge, informed judgment, exemplary health care and professional practice. We are responsible stewards of the resources entrusted to us and utilize them with integrity for the betterment of our community. The values reflect the environment we will create. It will be an environment that is rigorous, yet caring for students. It will be an environment where teaching and learning, discovery and innovation create the energy and enthusiasm that fuels entrepreneurship and intellectual risk-taking. It will be an environment that respects and celebrates diversity of background and benefits from inclusiveness and a profound sense of community. It will be an environment that not only teems with talent but also unselfishly shares that talent with its communities.

The preceding two sets of values merge to one in our program because citizenship rests at the heart of our work inasmuch it strives to achieve a favorable congruence between the environments we inhabit and use, and the base needs of the citizenry. Clearly there is both functional and distributional matter here. And fairness is a principal challenge in the construction of our urban places. Diversity and inclusiveness go hand in hand. The words City and Civilization, indeed, have a common Latin root. It is no wonder perhaps, therefore, that the ethic of our constituent disciplines favors just outcomes, justly and rigorously achieved. The Doctoral Program in Design and Planning pursues these themes in several distinctive ways: in the pursuit of representativeness on our faculty and amongst our students, and in the investigation of possible architecture, landscape, and planning interventions that would further enable the city to function in fair and inclusive ways.
2. Curriculum and Areas of Focus

   a. How relevant, rigorous, and consistent with professional or disciplinary standards is the curriculum?
   b. How sufficient are the numbers of courses, sections of courses, varieties of courses, and sequencing of courses offered?
   c. How is the curriculum relevant to the needs of students?
   d. How is the rigor of the curriculum measured?

The required core curriculum develops topics in theory, methodology, and application, and also includes a series of program wide colloquia. A defining characteristic of the Program and the disciplines from which it draws is its interdisciplinary nature—bridging architecture and planning; the humanities and the social science. Proper scholarly training within these disciplines presents inherent challenges from a pedagogical perspective. Coverage aims to be in depth but also with breadth so as to illustrate the complex interrelationships among planning and design problems.

Admission Standards
Prerequisites

Applicants admitted to the PhD Program normally will have completed the requirements for the Master of Architecture, Master of Planning, Master of Landscape Architecture, or a related master’s degree program. Students from allied fields are also encouraged to apply. Field specialization and background are open. However, students will preferably have completed a program in planning or a design-related field, such as:

Architecture
Architectural Engineering
City and Regional Planning
Landscape Architecture
Urban Design
Environmental Studies

GPA, GRE and TOEFL Scores

Consistent with the University requirements, applications are evaluated based on Grade Point Average (GPA) scores, Graduate Record of Examination (GRE) scores, and the Test of English as a Foreign Language (TOEFL) scores (where applicable). All exams must have been taken within a year before applying to the program: Academic achievement as evidenced by an undergraduate grade point average of 3.0 (on a 4.0 scale) or better, and a graduate grade point average of 3.5 or better. The program looks for GRE scores of 158 or better on each of verbal and quantitative reasoning tests and for a minimum of a 4.00 score on analytical writing, unless a student’s record documents substantial professional or scholarly achievement as evidence of exceptional ability. Applicants whose native language is not English must take either the Test of English as a Foreign Language (TOEFL) or the International English Language Testing System (IELTS) exam, or have a graduate degree from a university in the U.S. or another English speaking country. The minimum TOEFL score required for acceptance by the University of Colorado at Denver is 80 or higher on the TOEFL (sub-scores of 20 in Reading, Listening, and Speaking, and 24 in Writing) or 6.5 on the IELTS (sub-scores of 5.5 in each area). However, the Ph.D. program typically does not accept a student with a score lower than 85 on the TOEFL and 6.8 on the IELTS.

Application Requirements

The following documents must be submitted before an applicant will be considered for program:

Application Forms
Application Fee
Three Letters of Recommendation
Examples of previous research and written works
Official transcripts from all previously attended institutions of higher learning
Statement of Personal and Professional Goals
Scores of Test of English as a Foreign Language (TOEFL) for non-U.S. residents whose native language is other than English
Graduate Record Examination (GRE) score
Financial Statement (for non-U.S. residents/citizens)

Program Requirements
Successful completion of the PhD program requires fulfilling course requirements, passing the comprehensive examinations, preparing and defending a dissertation proposal, and undertaking research, writing and defending a dissertation. This is a multi-year process that involves a close mentoring relationship with the student's advisor. The Checklist that follows summarizes the major requirements of the program. A student's program of study must include at least 12 credit hours of PhD Program core classes, 15 credit hours of study in a Major field and 9 hours in a Minor field. The Major and Minor requirements are minimums; the particular field of study may require additional work. Based on these and other requirements, students shall complete a minimum of 36 credit hours in their Major and Minor fields, and PhD Program core requirements prior to advancement to candidacy. This is the equivalent of four semesters (two years) of coursework. Students must maintain a 3.0 GPA in all their coursework. A grade of less than B in any PhD Program requirement (Core, Major and Minor) will not be accepted as meeting those requirements. For Program Core courses, the student must retake the course. A Program Core course may only be retaken once. The student will be terminated from the program if a grade less than B is received more than once in a PhD Program Core course. In addition, students must also pass a comprehensive exam as well as write and defend a dissertation proposal and dissertation.

Checklist of Student and Advisor Responsibilities

Annually:
End of Year Report submitted by the student to his/her Advisor and the PhD Program Director in April

Year One:
Student refines focus of Major Field
Student identifies Minor Area, including Minor Advisor
Student develops course of study with his/her Advisor
Advisor provides advice on above and reviews progress

Year Two:
Student refines focus of Minor Field
Student completes the course requirements
Advisor provides advice on above and reviews progress
Completion of Course Requirements

Upon completion of the course requirements, the student prepares a list of courses taken and their allocations to major and minor fields. This list is reviewed and approved by the student's advisor, and submitted to the PhD Program Director for final approval.

Comprehensive Examinations:
Before the comprehensive examinations a student must establish a Comprehensive Examination Committee. The formal confirmation of the dissertation committee is established by signing the committee form. The student's Comprehensive Examination Committee and the examination schedule must be approved by the PhD Program Director. The Graduate School must be notified on the appropriate forms at least two weeks before the exam. The committee chair is responsible for monitoring the conditions and reporting their outcome to the PhD Program Director. The examination form must be signed by the committee and returned to the PhD Program Director for approval. Upon approval of the form, the PhD Program Director submits the form to the Graduate School Office.

Dissertation Proposal
The proposal should be submitted by the student in writing first to the student's Dissertation Advisor, the Dissertation Advisory Committee, and to the PhD Program Director for approval. Upon approval, the proposal must be presented to and approved by the student's Advisor and Dissertation Advisory Committee. After the student has satisfied the requirements for the course work, comprehensive examination and dissertation proposal, he/she will be eligible for admittance to the status of doctoral candidate. The student's advisor and PhD Program Director must approve completed Candidacy Status application form before submission to the Graduate School for final approval and filing.
**Dissertation Defense**

The PhD Program Director will approve the student’s final examination / defense committee and the examination schedule. The Graduate School must be notified on the appropriate forms at least two weeks before the exam. The dissertation defense committee shall consist of a minimum of five Graduate Faculty members. The student’s dissertation advisor may not chair the examination committee. If both the dissertation and the examination are satisfactory and the candidate has completed the requirements of minimum credit hours, residence, major/minor fields, and any other requirements of the field of study, the Graduate School will certify the candidate as qualified to receive the degree of Doctor of Philosophy.

**Residency and Enrollment Requirements**

The minimum enrollment requirement at CU Denver for doctoral students is six (6) semesters of full time scholarly work beyond the attainment of a bachelor's degree. Two (2) semesters of enrollment credit may be allowed for an earned Master's degree from another institution however; at least four (4) semesters of credit must be earned for work performed while enrolled at CU Denver. The doctoral program requires a minimum of two years of residency (not fewer than four semesters enrolled in a minimum of six credit hours each, excluding summer) devoted to coursework and other preparation for advancement to doctoral candidacy status. Ordinarily, research for the dissertation will also be completed while in residence. After that time, special arrangements can be made with the CAP PhD Committee if substantial work needs to be performed elsewhere. Students must complete the comprehensive examinations and dissertation proposal within four years from the beginning of their first semester in which they are enrolled as a PhD student at University of Colorado Denver. In addition, University of Colorado Denver requires that all degree requirements be completed within eight years of matriculation.

**Active Status**

To remain actively enrolled, students must register for six credit hours or more each academic semester (excluding summer) until they become a doctoral candidate. Students who are not so registered are automatically withdrawn from the University of Colorado Denver and must apply for readmission to the program. The readmission decision will depend on the student's academic record and progress toward the degree. Doctoral students must register for a minimum of one hour of dissertation credit in the term of graduation. If all requirements for graduation, including submission of the final approved dissertation, have been completed prior to the last day of registration, and the student was registered for the preceding term, the student may apply for a waiver of the enrollment requirement.

**Advising and Committees**

**Overview:**

Each student entering the program will have a PhD advisor. Students wishing to change their Advisor should do so during their first year. All appointments of advisors must be approved by the PhD Program Director. Students wishing to change their Advisor after the first year must petition the PhD Program Director for approval.

**The Advisor:**

The advisor guides the student through the completion of the course requirements, the preparation for the comprehensive examinations, the dissertation proposal, and the dissertation. The advisor must have a doctoral degree and be a tenured/tenure-track member of the CAP PhD program.

**Dissertation Advisory Committee:**

The Dissertation Advisory Committee provides guidance for the investigated dissertation topic, comprehensive examination, dissertation, and the final dissertation examination. This committee includes at least three faculty members: the Advisor and two additional faculty members. Including the advisor, the majority of the committee members must be full-time faculty members of CAP, and all members must have a PhD degree. Membership of this committee may change if the student’s interests and needs change. Any changes should be developed in consultation with the student’s advisor, and must be approved by the PhD Program Director.

**Comprehensive Examination Committee:**

This committee consists of a minimum of three graduate faculty members, including the Advisor. Although it is not a requirement, this committee should mainly consist of the Dissertation Advisory Committee. Including the advisor, the majority of the committee members must be full-time faculty members of CAP, and all members must have a PhD degree. For the comprehensive examination, at least one member must represent the student’s major field of study, and at least one member must represent the minor field of study.
Final Dissertation Examination Committee:
This committee consists of a minimum of five members, including the Advisor, the Dissertation Advisory Committee for the dissertation, and at least two additional external members, with at least one from outside the University of Colorado Denver. External members must be full time faculty members in a degree-granting institution and must have PhD degrees.

Special Circumstances:
If the advisor leaves the faculty of CAP before the comprehensive exam and/or thesis topic is approved, the PhD Program Director will work with the student to identify a new advisor for the committee. If the advisor leaves the faculty of CAP after the comprehensive exam and/or thesis topic is approved, and both the advisor and the student wish to continue in the advising relationship, there will be no change of advisor. The advisor may be appointed as adjunct faculty in the School, in order to recognize his or her continuing role, with approval of the PhD Program Director. If a member of the dissertation committee other than the advisor is unable to continue in this role, for any reason, the advisor will work with the student to identify a new member for the committee. Upon accepting to serve in this role, the new member of the committee must sign on the dissertation topic and dissertation proposal documents as they were previously approved.

Curriculum
The minimum requirement is 36 credit hours of coursework, all of which must be at the Graduate level (5000 and above) and 30 hours of dissertation credits. All PhD students are required to take 12 credit hours of core courses. The curriculum is divided into three stages consisting of core courses, major and minor field courses, and the dissertation. The program requires a minimum of 66 hours of graduate work, 30 of which must be earned while in residence.

Each student’s curriculum is tailored to his/her individual needs and is determined in close consultation with the dissertation advisor. Within their area of specialization, students will identify a major area of study and an outside field of study. All students are required to enroll in the PhD colloquium and Research Methods core courses during the first and second years of course work. Core Courses (12 credit hours, minimum with B or better grade)

- PhD colloquium I (3 credits)
- PhD colloquium II (3 credits)
- Two Research Methods courses (3 credits each)

Major Field of Study (15 credit hours, minimum of B or better grade)
The Major Field encourages students to individualize their course of study by focusing on an area of scholarship within the specialized field. Major Advisors will work with the student to develop a course of study appropriate to the field.

Minor Area of Study (9 credit hours, minimum of B or better grade)
The Minor Area encourages students to individualize their course of study by focusing on an area of scholarship outside of the specialized field. The minor area may involve substantive research questions or it may focus on methodological approaches that can be related to the substantive concerns found in the major.

Additional Courses (variable): (30 credit hours, minimum of B or better grade)
During the course of doctoral study, students may enroll for credits related to their preparation for comprehensive exams, the dissertation proposal and preparation, or advisor approved independent study.

Typical Course of Study

FIRST YEAR
Students develop their degree plan, take six credit hours of the required Core Curriculum, complete additional courses in their specialty area, and any prerequisite courses.

SECOND YEAR
Students take the remaining core courses, continue to take electives in their minor and specialty areas, begin literature surveys and reviews, and prepare for their comprehensive exam.
THIRD YEAR
Students complete their specialization papers, prepare a dissertation proposal, complete literature review, and take the comprehensive exam.

FOURTH/FIFTH YEAR
Fourth and fifth years are spent researching and writing the dissertation.

Independent Studies
All independent or directed studies must be related to the student’s major or minor area of study, comprehensive examinations, and/or dissertation topic. The number of credit hours for independent studies is limited to a maximum of three per semester over the first four semesters of coursework. Independent study course work cannot exceed 25 percent of the 66 credits of course work required for the PhD degree.

ASSESSMENT OF PROGRESS:
Students are required to submit year-end reports that update their progress relative to the program of study. The report must be first approved by the advisor of the student. Upon approval of the advisor, the report will be submitted to the PhD Program Director for final approval. The submission format is both digital and analog: (1) one pdf file of the report as signed; (2) one printout of the report as signed. A copy of this report is forwarded to the Graduate School Office to be placed in the student's file.

Annual Report must include:
Name of Major Advisor
Name of Minor Advisor
Members of the Advisory Committee
Major milestones
Major and Minor areas of study requirements
Plan of fulfillment of core requirements
Comprehensive exams (if applicable)
Level and status of the dissertation
Major and Minor courses taken or to be taken:
Course Title
Name of the Professor
Grades received
A copy of the course syllabus
Reading list
Independent Studies
Course Title
Name of the Professor
Grades received
A copy of the independent study outline Reading list
Final product produced for the study GPA
Other Accomplishments, including publications, awards, research grants, conference presentations, etc.

The submission of this report is mandatory, not optional. The submission deadline is June, 1st.

Comprehensive Examinations
After completing or registering for all program-required, non-dissertation coursework, and concurrently with applying for admission to candidacy for the Ph.D., students must take a comprehensive examination in their respective field. The timing will normally be no sooner than the end of the fourth semester. The student cannot take the comprehensive examination with less than a 3.00 G.P.A. and before they have completed or registered for all non-thesis coursework required by the CAP PhD Program and before this application is submitted to and approved by the Graduate School. Before the comprehensive examinations a student must establish a Comprehensive Examination Committee with at least three members, including the student’s dissertation advisor. The membership and responsibility of this committee is defined in the Advising & Committee section. The student's dissertation advisor may not chair the examination committee. The student's Comprehensive Examination Committee and the examination schedule must be approved by the PhD Program Director. The Graduate School must be
notified on the appropriate forms at least two weeks before the exam. These forms are included in the Ph.D. comprehensive examination packet.

The Comprehensive Exam consists of two stages and tests the student’s mastery of a broad field of knowledge, not merely the formal coursework that s/he has completed:

Students first prepare literature review papers in their chosen area(s) of specialization:
Preparation of these specialization papers is to ensure that students possess the requisite background for the dissertation research to be undertaken. This effort is also intended to assist students in integrating the diverse disciplines and perspectives to which they have been exposed as these relate to their area(s) of specialization. The subject matter will be delineated so as to reflect the students’ interests and research direction and is determined in consultation with the student’s

Advisor and Dissertation Committee:
Papers must entail an extensive review of the pertinent literature, describing and summarizing past research, critically evaluating its findings, and identifying remaining questions, while outlining appropriate approaches to address them. Preparation of these papers may begin during the second year of full-time study. Students will typically find it to their advantage to produce them in the context of an independent study arrangement with a sponsoring faculty member.

An oral exam that assesses the student’s general knowledge and understanding of the field in which the dissertation will be developed. It is based on the previously prepared specialization papers and conducted by the dissertation committee. The oral part of the comprehensive examination is open to all members of the Graduate Faculty. This examination must be completed no later than the end of the third year for fulltime students. All members of the committee must be present for the examination although a minority of members, but not the chairperson nor the student, may participate by interactive video. In the event of an emergency that prevents one faculty committee member from attending the exam, the exam can proceed with the faculty who can attend and the student will schedule a separate meeting with the faculty member who was absent at an alternate time. The examination form must be signed by the committee and returned to the PhD Program Director for approval. Upon approval of the form, the PhD Program Director submits the form to the Graduate School Office. The student must receive votes from the majority of the examination committee for one of the following outcomes:

Pass
Conditional Pass
Fail

If a student receives a Conditional Pass, the examining committee will clearly define the requirements for the student to receive an unconditional passing grade and these requirements must be completed to the satisfaction of the examination committee within four months. The committee chair is responsible for monitoring the conditions and reporting their outcome to the PhD Program Director. Failure to satisfy these conditions will result in failure of the examination. If a student fails the Comprehensive Exam, his/her Advisor will inform the student in writing of the grounds for falling short. A student who fails the examination is subject to immediate dismissal from the Graduate School upon the recommendation of the PhD Program Director and concurrence of the Dean. At the PhD program's discretion, a student who fails the examination may retake it. The retake will be in the form designated by the committee and must be completed within 12 months. The original examination form noting the failure is signed by the committee and returned to the PhD Program Director. New examination forms will then be generated when the examination is rescheduled. Students will be required to meet registration requirements and be registered during the term in which the repeated exam is taken.

Dissertation Proposal and Candidacy Status Approval
After successful completion of the comprehensive examinations, the student will establish a dissertation topic in a Field of Study offered by the CAP. The dissertation advisor must have a doctoral degree and be a member of the CAP PhD program. The topic is not required to be contained within one Field of Study but may be interdisciplinary in nature. In consultation with his/her Dissertation Advisory Committee, the student will develop a formal dissertation proposal comprising:

General Statement of the scope of the dissertation.
Significance of the dissertation.
Survey of existing research and literature with critical comments and an assessment of the extent to which the material will be utilized.  
An explication of the proposed design, methods, and data sources for the research.  
Outline of the dissertation.  
An assessment of the proposed project’s contribution to the field.  
Working bibliography.  
Resources for primary material.

The proposal should be submitted by the student in writing first to the student’s Dissertation Advisor, Dissertation Advisory Committee, and finally to the PhD Program Director for approval. Upon approval, the proposal must be presented to and approved by the student’s Advisor and Dissertation Advisory Committee. The dissertation should be an original contribution to the student’s chosen field. This may involve adding new bodies of knowledge to the field, offering insightful reinterpretations of existing bodies of knowledge, or developing new procedures and methods. After the student has satisfied the requirements for the coursework, comprehensive examination and dissertation proposal, he/she will be eligible for admittance to the status of doctoral candidate. For recognition of this status, the student must submit a formal statement that names the Dissertation Committee, and delineates the dissertation topic, states the purpose of the investigation, and proposes a methodology for its completion. The student’s advisor and PhD Program Director must approve the statement and completed Candidacy Status Application Form before submission to the Graduate School for final approval and filing.

The Dissertation
The PhD dissertation is a written piece of original scholarship that represents a significant new perspective or contribution in the chosen field of study. The candidate must complete a comprehensive, comparative, and methodological investigation in the chosen field, culminating in a written dissertation covering that investigation. The dissertation must be either an addition to the fundamental knowledge of the field or a new and substantially better interpretation of facts already known. It must demonstrate that the candidate provides substantial evidence of original thought, talent for independent research, and ability to organize and present findings.

The dissertation must be presented in the format appropriate to the candidate’s field. It must meet the criteria published in the University of Colorado Denver Graduate School Rules and Policies. The student’s Advisor and Dissertation Committee periodically review drafts of the dissertation and offer suggestions for its completion. The student’s Dissertation Advisory Committee shall evaluate the final draft dissertation when ready to determine whether the document has met both the objectives stated in the proposal and the minimal standards for dissertations. It is expected that the members will give this evaluation within two weeks after the receipt of the completed draft dissertation. The student will be personally available for clarification, if any is needed, at this stage. The advisor shall inform the Dissertation Advisory Committee and the PhD Program Director as soon as the Committee agrees that the final examination can be scheduled. No final examinations will be scheduled without a letter from the Dissertation Committee Chair to the PhD Program Director requesting an examination to be scheduled. The letter must state the dissertation is in final form and that all members of the final examination committee have the most recent version.

Dissertation Defense  
After the dissertation has been completed, a final examination on the dissertation and related topics is conducted in two parts:

(1) an oral presentation of the dissertation research that is open to the public, and  
(2) a closed examination conducted by the examining committee.

The PhD Program Director will approve the student’s final examination / defense committee and the examination schedule. The Graduate School must be notified on the appropriate forms at least two weeks before the exam. Forms are included in the Ph.D. graduation packet. Students must register for the semester in which they undertake the dissertation defense; therefore, if students elect to defend their thesis in the summer semester they must register for that semester. The Graduate School will send announcements of the examination to appropriate faculty members, and the signature form will be sent to the PhD Program office to be placed in the student’s file for use at the examination. The dissertation defense committee shall consist of a minimum of five Graduate Faculty members. The student’s dissertation advisor may not chair the examination committee. The student must submit finalized draft
copies of the thesis to the defense committee at least two weeks before the examination date. All members of the committee must be present for the examination although a minority of members, but not the dissertation chair or the student, may participate by interactive video. In the event of an emergency that prevents one faculty committee member from attending the exam, the exam can proceed with the faculty who can attend and the student will schedule a separate meeting with the faculty member who was absent at an alternate time. The examination form must be signed by the committee and returned to the Graduate School office. The student must receive votes from a majority of the examination committee for one of the following outcomes:

Pass
Conditional Pass
Fail

If a student receives a Conditional Pass, the examining committee will clearly define the requirements for the student to receive an unconditional passing grade and these requirements must be completed to the satisfaction of the examination committee within 60 days of the defense. Under extenuating circumstances, the PhD Program Director may petition the Graduate School for additional time. If a student fails the examination, s/he may not continue in the program. If both the dissertation and the examination are satisfactory and the candidate has completed the requirements of minimum credit hours, residence, major/minor fields, and any other requirements of the field of study, the Graduate School will certify the candidate as qualified to receive the degree of Doctor of Philosophy.

**PhD Degree Time Limit: Eight Year Completion Requirement**

University of Colorado Denver requires that doctoral students, whether enrolled full time or part time, must complete all degree requirements within eight years of matriculation. Students who fail to complete the degree in this eight-year period are subject to termination from the Graduate School upon the recommendation of the PhD Program Director and concurrence of the Dean of the College of Architecture and Planning and the Dean of the Graduate School. For a student to continue beyond the time limit, the program director must petition the Dean for an extension and include: 1) reasons why the program faculty believes the student should be allowed to continue in the program, and 2) an anticipated timeline for completion of the degree. Approved leaves of absence do not automatically extend the time limits for earning a degree, but they may be used as a reason to request an extension if needed.

**Student Learning Outcomes**

a. What are the knowledge and skill goals for undergraduate and, if relevant, graduate student learning?
b. How are the knowledge and skill goals made known to students?
c. How are student learning outcomes measured?
d. If the student learning outcomes measures have changed since the last program review, specify the reason(s) for abandoning one measure and for adopting a different one in its stead.
e. How well are the knowledge and skill goals being met?
f. How well are student majors in each program finding employment or being accepted into graduate programs in or related to their field of study?

Value-added is an elusive quantity, and the diversity of intellectual trajectories in the program—while fostering interesting cross-fertilizing discussions—makes it harder to address the many distinct foundational needs of the students. Gauged in terms of academic placements, the program is not yet where many faculty would aspire for it to be. Prior to the split from Boulder, the target as most if not all would assert, was academic destinations in architecture, urban and regional planning, and perhaps landscape architecture. However, the newly formed CAP PhD faculty at UCDenver have found it necessary to review past performance and expectations to extract lessons in envisioning next steps to what in many ways is a new program. Amongst these are several: that Program faculty must aspire to higher visibility amongst peer faculty and institutions, that the previous core curriculum was skewed toward a kind of “Environmental Design” perspective devoid of the professional instrumentalities that allow professionals to convert ideas into actions on the ground, and that the market value of the PhD has expanded beyond its traditional role as a training ground for academics because research is now the foundational activity of many disciplines within politics and business. It is within this last aspect that much of the focus of discussion about the future of the program has rested.

There has been faculty discussion regarding, but no formal plan drawn up to enlarge the concept of research and its role in endeavours more aligned with CAP research centers such as CCCD and CoPR.
Research within these groups is markedly geared more towards application and integration into the professional/community engagement realms and the newly emergent public policy ("think tank") world. This will change the way financial resources for students are given and what type of student the program will recruit. It has also transformed the way the methodology course sequence is delivered — to make sure that students are aware of the full possibilities of their skillset and not the defaulting to an ever more competitive market of traditional academia as the sole measure for success. Though the program will inevitably place future students in traditional academic positions, especially if it maintains its current path — it should also be able to point to a diversity of job placement for our students in the future.

Educational Experience
a. How have students evaluated the availability, adequacy, and responsiveness of academic advising?
b. How have students evaluated the availability of faculty for out of classroom interaction?
c. What customer service options are available to assist students with problems?

While the Program has not undertaken a systematic appraisal of the student learning experience, such would be desirable as was the case at the last review. However, the recent events of the last to years have not allowed such a detailed evaluation to take place. However, there is agreement amongst the faculty that the program was far too large and that students were not being provided with adequate advising and faculty interaction. Within the last two years, admission has been more selective and emphasis has been placed on graduating the rather large cohort that was adrift at the time of the separation. Measures to support Higher standards and greater faculty involvement have been implemented within the last two years with the primary goal of bringing financial and faculty resources more in line with actual capacity to increase the quality of the educational experience for our students. The next step would be to assess how students budget their time, between work and study, teaching appointments and dissertation research, amongst courses/departments, and so on, this level of detail is clearly a future endeavor for the faculty as the "dust" further settles from the separation with Boulder.

Faculty Contributions
a. What ratings have students given in evaluating teaching? What steps have been taken to improve low evaluations of teaching? What other steps could be taken to improve teaching?
b. What is the quality of the scholarly contributions of faculty and professional staff? How do appropriate professional communities recognize the quality of these contributions?
c. How does the quantity and quality of the scholarly contributions of faculty and professional staff compare to that of faculty in (a) relational and aspirational peer institutions and (b) other than relational and aspirational peer institutions?
d. How are the faculty engaged with the appropriate professional communities locally, regionally, nationally, and internationally?
e. How successful have the faculty been in generating external grants and contracts? How are the contracts and grants received by faculty consistent with the strategic goals and vision of the program, the school or college, CU-Denver, and system initiatives? How has the level of external grants and contracts grown since the last program review? What steps could be taken to increase the level of external grants and contracts?
f. How is the workload of faculty and professional staff distributed between teaching, research or creative work, and service? How are faculty members integrating teaching, research, and service?

14 faculty constitute the Program and their research interests are provided below. CAP is fortunate to have made three exceptional faculty hires since the separation who are poised to inject new energy and capacity into the program. At least four faculty are assistant professors who are undoubtedly eager to contribute to the research prowess of the college and also the program. The faculty of the PhD program represents a broad range of interests and expertise.

Ameri, Amir
Associate Professor
Department of Architecture
Ph.D., Cornell 1988
History and Theory of Architecture from Renaissance to present, Cultural Studies, Contemporary Theory, History of Building-types

Attmann, Osman
Associate Professor
Beck, Jody
Assistant Professor
Ph.D., University of Pennsylvania 2009
Department of Landscape Architecture
Politics of land use, particularly focused on energy and food

Gallegos, Phillip
Associate Professor
Department of Architecture
Arch.D., University of Hawaii 2007
Education and the Profession

Gelernter, Mark
Professor
Department of Architecture
Ph.D., University of London 1981
History, Theory, Urbanism, Traditional Design Languages

Jenson, Michael
Associate Professor
Department of Architecture
Ph.D., University of Edinburgh 1996
The Philosophical Relationship of Power and Utopia

Koziol, Chris
Associate Professor
Department of Architecture
Ph.D., University of Colorado Denver 2003
Evidence-based design, Applied public interest design/research, Historic preservation & design policy history.

Mäkelä, Taisto
Associate Professor
Department of Architecture
Ph.D., Princeton University 1991
Aesthetic theory, the modern movement, cultural institutions, cultural criticism, classical & vernacular traditions, and global urbanism.

McAndrews, Carey
Assistant Professor
Department of Planning
Ph.D., University of California Berkeley 2010
Transportation planning, policy, and design; Public health and healthy communities; Organizations and institutions

Morgenthaler, Hans
Associate Professor
Department of Architecture
Ph.D., Stanford University 1988
Modern European Architecture

Németh, Jeremy
Associate Professor
Department of Planning
Ph.D., Rutgers University 2007
Land Use, Zoning, Social Justice, Public Space, Urban Design
Shellenbarger, Melanie  
Senior Instructor  
Department of Architecture  
Ph.D., University of Colorado Denver 2008  
Architecture History, Theory, Criticism

Steffel Johnson, Jennifer  
Senior Instructor  
Department of Planning  
Ph.D., University of Colorado Denver 2006  
Mixed-Income Housing, Housing Policy, Social Justice, Diversity, Communities

Troy, Austin  
Associate Professor  
Department of Planning  
PhD, Environmental Policy and Economics,  
University of California, Berkeley,  
Land Use, Zoning, Social Justice, Public Space, Urban Design

Resources and Cost Effectiveness

a. How adequate are the program’s financial resources?
b. How adequate are support resources (e.g., faculty from other disciplines, professional staff, support staff, library, media, operating expenses, space, technology) to achieve the goals of the program?
c. In comparison to relational and aspirational peer institutions, how appropriate are: (1) the student/faculty ratios, (2) the program’s costs, (3) the costs per student, and (4) the costs per faculty member?

The Program is fortunate to have the strong financial backing of the College of Architecture and Planning to offer fellowships, research assistantships, teaching assistantships, and instructor positions. Generally speaking, CAP gives priority to PhD students to instruct various classes and to turn to others when PhD students are not available. Over the years, almost every student has received some support from the Program—in the form of tuition remission, a stipend, a research or teaching assistantship. Funding decisions have been awarded based on a combination of need and/or merit and primarily at the discretion of the PhD Program director.

The bulk of available funding is derived from the PhD budget and/or instruction budgets of the three academic departments (architecture, landscape architecture, planning and design); few students receive funding from sponsored research grants, however this is clearly a goal in the new agenda of how the program recruits and the educational experience of our students. For a research oriented degree, there is room for relying on a stronger culture of externally funded research on faculty funded research projects. With the greater connections to centers that are having more and more success at external funding this is a feasible option that should be explored in the future:

Colorado Center for Community Development (CCCD)
CCCD is a research center that is committed to collaborating with communities to improve the places we live, work and play. It partners with rural and urban communities, conducting applied research to enhance the built environment, promote civic engagement, and create healthier, more sustainable communities. Through its programs, CCCD employs a multidisciplinary platform to build sustainable, healthy communities by developing partnerships in business, economic development, public administration, social justice and public health. CCCD’s multidisciplinary approach is rooted in shared knowledge and collaboration, and bringing the “top down” and the “bottom up.” It employs a diverse teaching, research, and learning environment in which graduate students gain valuable design and community development experience, while communities receive the planning, design and civic engagement assistance they need to support more sustainable, healthy lifestyles.

Center of Preservation Research (CoPR)
The Center of Preservation Research (CoPR) is a university research center dedicated to the study, preservation and sustainable use of the built environment and cultural landscapes. It focuses on place, preservation, education, and research. Through education and scholarship, its exploration of the past for
application in the present provides a basis for future sustainable preservation. Projects and research undertaken by CoPR faculty and students fall along a continuum ranging from discrete historic preservation projects conducted for a community or organization to theoretical research on emerging practices and trends. Research and projects involve:

- Historic Preservation Documentation: Graphic Documentation, Context Studies, Surveys, and Nominations
- Historic Preservation Design: Design, Planning, Building, and Conservation
- Applied Research
- Academic Scholarship
- Historic preservation projects at CoPR often encompass a number of phases over multiple years, perhaps beginning as survey or documentation work, moving on to planning or conservation studies, and resulting in a published paper contributing to professional practice or advancing technology.

Program Improvement

a. How have the results obtained from measuring student learning outcomes been used to revise and strengthen the program(s)?
b. What improvements should faculty, professional staff, and administrators undertake to enhance the program?
c. What improvements can be made without additional resources and what will require additional resources?
d. How can the program generate additional resources for program improvement?

At the last program review visit several specific suggestions were made to improve the program. These are listed below with the improvements that were made to date to move the program forward:

2008 EXTERNAL RECOMMENDATIONS
GENERAL
- Place college, departmental, and program policies and procedures on the web site.
- Allocate resources to further update the web site including an in-house web master.
- Provide stronger student advising to help students navigate such issues as cross-campus enrollment with less difficulty.

The website has been rebuilt to reflect the recent separation and has dedicated space for PhD and research. New student handbook was created and approved in 2013 to assist students in how to navigate the program. All relevant information has been added to website and updated periodically. Cross-campus enrollment will be non-existent within next 2 to 3 years.

DUAL CAMPUSES
- Provide support for students to negotiate the various administrative problems that occur due to the dual campus, e.g., enrolling in Boulder electives.
- Clarify governance issues between the two campuses across the various programs.
- Other recommendations are outlined below under “PhD Curricular Issues.”

Prior administrative problems and governance ambiguity has been cleared up with the separation of the two campuses. The remaining students who were admitted previous to the split are slowly graduating and this condition will be non-existent within the next 2 to 3 years.

PhD STUDENTS ADMISSIONS, FUNDING, AND PROGRESS
Fellowships
- Consider establishing a fixed number of fellowships, free of work, for first year students in program.
- Limit the time period of funding offers – for example three or four years. Funding should also be tied to progress that is assessed annually. Letters need to clearly explain the nature of the support and expectations for both paid work and progress through the program.
- Refine the funding process to remove confusion and help student progress:
A formal, centralized, transparent process for allocating students to assistantships each year.

- A limit on the number of hours of support each student receives, for example a maximum of 15 or 20 hours, in order to help them progress more quickly and allow more students to be supported. Many students seem to undertake far more than this.

- Limits on being instructor of record before passing the comprehensive examination.

Institute a rigorous annual review of progress by PhD program faculty. Students who are not performing should be asked to leave. While those students who finish the program do so in a reasonable time on average (5.5 years), many students drop out after a long period of time.

Steps have been taken to bring PhD program expenditures to a manageable level with expectation of size and number of students greatly decreased. Funding is offered on a yearly basis renewable up to three years. Renewal of funding is based upon the review of the students’ progress and is only renewed if the faculty deems sufficient process has been made. PhD students are considered first in line for assistantships, but the vetting process is handled by the individual departments and centers which help to clear up past perceptions that one or two faculty were making all the decisions regarding these positions and unfairly favoring certain students. PhD students that are instructor of record now have to be approved by PhD director after faculty discussion with this title only being offered when there is a substantial record of expertise in the field prior to their present course of study and after initial coursework is finished. In general, goal is to have students to be ABD level within three years maximum. Focus is now more on course of study/research and less on teaching, and when this teaching occurs, mentors are provided for guidance.

**PhD CURRICULAR ISSUES**

Revisiting the Core Classes: The core has been updated several times and students in more recent cohorts reported improvement. However, it could be reconsidered again. It is difficult in a program that is designed to be cross-disciplinary – spanning from the speculative to applications-based models – to have a single core curriculum suitable to all students.

- Review the present Core Curriculum to consider its relation to the mission of the program and the essential needs of new doctoral students.

  - For example, rather than requiring all students to take the complete core they might have one class in common – potentially a solid research design course – and then take different tracks with a menu of “directed electives,” perhaps humanities and social sciences or some other logical set of tracks.

  - The program, students, and faculty, would all profit from establishing this small but focused series of “directed electives” for doctoral students that may also include Masters Degree students. At present, the reverse seems to be the standard. Developing more course work for doctoral students will help further establish the program’s curricular breadth as well as create new learning opportunities for students and faculty.

The Place of Architecture: As demonstrated by the program documentation of doctoral candidate advisers, it remains unclear how much support there is among the faculty for continuing a concentration in “architecture,” particularly when the term “architecture” is so often used interchangeably with “history, theory, and criticism (HTC).” The division of HTC from the other concentrations seems artificial and unproductive as all of the various concentrations have their own histories, theories, and criticality.

- Reconsider the efficacy of dividing students and faculty by concentration rather than letting them have more individualized interests or dividing by department. Alternatively, the PhD program could work at more clearly defining the architecture concentration.

The efficacy of dividing students and faculty by concentration has been reconsidered and abolished per the last review suggestions. At the time of the separation, the SHE and HTC concentrations were dissolved in favor of creating a “newly formed” and more unified, interdisciplinary faculty collaboration at the Denver campus between landscape, planning, historic preservation, and planning. The handbook was created to outline the possibility of allowing students to have more individualized interests that span departments and are encouraged to link to the agendas of existing and emerging research centers. It also clarifies the steps that must be taken to successfully complete the research degree. Also, more
rigorous discussion have been undertaken by faculty surrounding the admission process to make sure that accepted students have the faculty guidance and support to navigate the field of potential more diverse individualized interests.

Role of Centers: Examine the structural relations of the various centers (some well-established and others still developing) to curriculum.

Students are encouraged to work within the centers and to align with current research projects to gain expertise in the grant process and community engagement, and practice within the civic realm. As are most of the recent moves to better the PhD, the program is a work in progress. Implementation is in process and diverse aspects such as this are difficult to track. However, it should be noted that change has occurred on this front since the review and will continue to move in a positive direction.

OTHER
Placement of PhD Students: It is unclear how students are being prepared for traditional academic positions and high-level research and policy positions in government agencies, nonprofit organizations, and the private sector.

- Create a process for ensuring that students learn how to teach, do research, publish, go to conferences, and apply for the first academic job. This is especially important given the lack of a significant doctoral student culture at the Denver campus.

With the creation of the handbook, the re-envisioning of the core sequence, and the new priorities concerning the type of student that is recruited and the criteria by which this is measured is becoming clearer in the minds of the faculty. This is apparent in discussions that have occurred since the separation. There have also been pilot programs run such as the annual one time grant funding opportunities where currents students submit grant proposals with strict criteria that are then critiqued by faculty to mentor students in the grant writing process. The funds can be used for travel to conferences, equipment, etc. This is train our student in how to write grants. Though somewhat piecemeal to date and not much more than antdotal results, all of these measures have been undertaken to ensure “that students learn how to teach, do research, publish, go to conferences, and apply for the first academic job.” It is also to move ahead on our quest to overcome the stated “lack of a significant doctoral student culture at the Denver campus." highlighted in the last committee report.

Space: Allocate space for PhD students in Denver.

PhD students now have their own workspace on the 4th floor of the UCD building as well as access to the 3rd floor library that has some study space.

Conclusion

The Program has recruited exceptionally well regionally and internationally in the past, but is currently undergoing great change as far as the type of student it attracts. With increased publicity and more precise, targeted recruitment, it will be important to broaden the reach of the program areas to attract top-notch students from the US.

One of the Program’s assets is its ability to contribute to and draw from a rising global city such as Denver. The larger research community within the campus, city, and the region is strong and the connections to the downtown area and the medical campus hold great potential. The Denver campus has for long emphasized the professional and applied. This furnishes a rich set of inter-unit study opportunities, expressed not only in Masters-level dual degree options, but also in a wide variety of course and consultation options across Schools and Colleges. Campus wide strengths include a rapidly burgeoning research culture (due primarily to the rather recent merging with the Health Sciences Center but also to a new focus on creating an interdisciplinary research culture by the campus administration), direct partnership opportunities in the health sciences, exceptional programs in environmental sciences, the PhD in Public Affairs immediately across from CAP on Lawrence street, and an amazing downtown urban laboratory (Denver) right outside its door all bode well for its future.

The CAP PhD Program in Denver is perfectly poised to increase its strength as a nationally and internationally renowned program to study the effects of the built environment. Several factors—the incorporation of a handful of new PhD faculty to the college, stable resources at the college level, and
increased emphasis on research at the university level—provide perfect springboards to launch in new directions, while continuing to draw on existing strengths within the Program.