

COLLEGE OF LIBERAL ARTS AND SCIENCES

ANNUAL PROGRAM REVIEW

March, 2005

I. INTRODUCTION

In 2004, the College of Liberal Arts and Sciences focused the use of limited resources on a few selected areas of growth where we believe we can build programs of distinction that set UF apart as a national and international leader. These areas where we are close to emerging among “the top 10-15” (of publics) are: Astronomy/astrophysics, African studies, anthropology, criminology, and creative writing. The failure has been the inability to increase the quality significantly in other essential areas, especially those for which any university is critically judged; e.g. mathematics, history, languages and literatures (other than African), political science, psychology, biological sciences, geography, and sociology. There have been some excellent beginnings to major quality enhancements (e.g. in philosophy, physics, environmental studies, women’s studies, European studies), but these have been significantly under funded compared to competing institutions such as OSU, PSU, UNC-CH, UC Davis, and Wisconsin, where large resources have been made available to develop outstanding programs. The principal resource needs include start-up costs, space, and infrastructure support.

Building research programs at UF that will allow us to enter the upper tier of universities will require that we invest significantly in the basic core disciplines of the arts and sciences.

II. COLLEGE and the STRATEGIC PLAN (MAJOR ACHIEVEMENTS & PARTICULAR ADVANCEMENTS – 2004)

A. Progress toward achieving the College’s strategic goals and key hires:

- (i) ***New International Programs:*** Department of Education title VI awards for National Resource Centers — African studies, transnational studies and European studies—as well as the Paris Research Center. These are characterized by language instruction integrated with cultural studies, new global studies efforts, and links across departments. A new example is the Center for European Studies with addition of staff and programs in Czech, Polish, Hungarian and Modern Greek. (2 Assist. Profs, 3 lecturers; 50% Center funded.). Key hire: Director of Center for Jewish Studies Jack Kugelmass (2004-05).
- (ii) ***Instrumentation Astronomy:*** The group leads the U.S in IR detectors with contracts for all three 10-meter telescopes; Chile, Hawaii and Canary Islands. Spectacular hires: Steve Eikenberry (2003-04), Jian Ge (2004-05). Recent hire: Jonathan Tan (2005) (Theory) bridge to Astrophysics. Department leads the U.S. in NSF Career Awards for any field.
- (iii) ***Creative Writing and Children's Literature:*** UF is second only to Princeton for in-house novelists with strong programs in both poetry and children’s literature. Leadership hires: David Leavitt, Jill Ciment (2003-04), Mary Robison (2004-05).
- (iv) ***Genetics and Comparative Genomics:*** CLAS has a nationally recognized program in comparative genomics, with strengths in the genetics of flowering plants (botany), wildlife species, such as birds & reptiles (zoology) and humans (anthropology). Key hires: So Hirata (2004-05) (chemistry-genomics/combinatorics); Adrian Hegeman (2004-05) (botany, plant proteomics); pending (2005) Sixue Chen (2005-06), botany.

- (v) **Criminology:** Key hires and a new department structure have led to a top 10 program. Growth here also has helped strengthen our contribution to Children & Family Studies, Children & Law. Key hire: (2004-05): Angela Gover.
- (vi) **Bio-nano-sciences:** CLAS has a unique combination of advanced innovative physical science tools to explore new regimes of living systems (optical real time imaging of single cells), as well as links to medicine that could make UF premiere in this field. Key hires: Gail Fanucci (2005) - bioelectronics, NHMFL connection, chemistry; Ed Merz (2005), biochemistry, computational science, chemistry.
- (vii) **Diversity enhancement:** We need to attract and retain a diverse faculty, including African American, Latino American, Asian American, Native American and Pacific/Oceania representation. CLAS leadership in creating joint positions (e.g. between area studies centers and college departments), strengthening African American studies with senior and junior hires, and supporting Latino studies are complemented by a commitment to recruiting students with diverse backgrounds. The college attaches high importance to better preparing the next generation of scientists, scholars and an educated public by a serious and sustained effort towards successful diversity. Major advance: Senior leadership hires in African-American studies: Faye Harrison (2004), William Conwill (2004), Willie Baber (2004).
- (viii) **Gender and Women's Studies.** CLAS plans to create a nationally-competitive PhD program in gender and women's studies, and has committed space (Ustler Hall) and funds for an endowed Chair (Yeoman's Chair). We will build on the existing MA program in women's studies with the goal of creating the only public PhD program in the southeast. This new degree will have an international comparative focus.
- (ix) **Graduate Student Program:** The College has increased the number and quality of graduate students (both U.S. and international). More importantly, many individual departments have made conscious efforts to increase the number of graduate students presenting their work at scholarly meetings and in publishing.
 - (i) **Endowed Chairs** filled in 2004:
 - (a) Yeoman's Chair of Women's Studies: Florence Babb
 - (b) Grass Chair of Jewish Studies: Mitch Hart (History)
 - (c) Milbauer Chair of History: William Link (History)
 - (d) Melton Chair of Jewish Studies: Jack Kugelmass (Anthropology)

B. Advancement of leading departments.

The strategy to build in selected inter-disciplinary areas has helped advance the participating departments and create new multi-disciplinary programs. The relevant departments and selected programs are listed below in order of perceived international impact.

Astronomy (astronomy and astrophysics/instrumentation/nano-engineering)
 Physics (astrophysics, biological science/biomedicine, nano-science)
 Anthropology (forensic anthropology, Pound Human ID Lab., genetics, environmental science and society)
 African Studies/Department of African and Asian languages and literatures (International Studies, Global Studies)
 Chemistry (combinatorics/genomics/pharmaceuticals, bio-nano-science)
 Criminology (children and the law/children and families studies)
 Botany and Zoology (Genetics, proteomics, bioinformatics)
 Statistics (Bioinformatics, genetics)

Philosophy (Ethics, philosophy of logic and science, transnational studies)
Political Science (Global Studies, European Studies, Graham Center)
English (Creative Writing, Poetry, Diversity enhancement)
Religion (new PhD program, environmental studies, less commonly taught languages)
Romance Languages & Literatures (Paris Research Center, France-Florida Research Institute)

C. Faculty Searches underway: 37

Key areas: Genetic Sciences (4)
Bio-nano-sciences (3)
Astronomy/astrophysics (3)
International studies (6)
Diversity enhancement (6)
African studies and languages (3)
Global studies (3)
Other (9)

Vacant lines (spousal hires, funds for startup): (12)
Opportunity and minority hires with assistance from Provost: (7)

III. MAJOR FAILURES

- (i) Financial Support for Graduate Growth: The growth funding has fallen short of meeting the expansion in graduate students, and the stipends currently offered are not competitive with our peers (such as PSU, OSU, Michigan, Texas A&M).
- (ii) Infrastructure Support: With budget restrictions the College has put on hold the faculty PC replacement program and networking and storage upgrades. We are seriously behind in meeting these needs.
- (iii) Biology Degree: While the IDS biology degree has been a great success, the effort to create a joint IFAS/CLAS B.S. in biology has been unsuccessful. We propose transforming the IDS degree to a regular baccalaureate degree in biology.

IV. MAJOR GOALS FOR 2005

The College will plan to remain focused on the high priority areas for faculty and research growth: (i) international programs (ii) diversity enhancement (iii) modern biological and environmental sciences (which intersects with medical and social science), (iv) astronomy/astrophysics/particle astrophysics, (v) social sciences with focus on global studies and intersection with environmental studies, and a Government Center for studies of public policy. The plans in these areas include structural and programmatic changes and not only faculty and research growth.

(i) International Programs

The College's goal is to increase research programs in international areas that integrate cultural studies with studies in economics, transnational programs and political science that address relevant subfields (global inter-American studies, environment socio-economics). We plan to strengthen the Center for African Studies so it will emerge as the leading National Resource Center with West African connections, exchange programs and concurrent links in the circum-Caribbean and Atlantic world. Two key hires (Assoc. Prof & Prof.) are planned: (i) Political Economics/Global Studies and (ii) Health Studies and Africa/AIDS. This growth will place UF in a position for enhanced renewal of the Title VI award. The plan has been to build clusters of

language and cultural studies groups (e.g. African, East Asian, and Latin American) so that the mutual strength provides strong cross-disciplinary strength for research activities. A College task force is in place to assess the merit need for programs in Middle East studies. We seek federal support for a computerized language teaching laboratory for teaching less commonly taught languages (LCTLs) to meet national needs. We would focus on languages such as Arabic, Bahasa Indonesian, Chinese, Farsi (Persian), Hausa, Hebrew, Korean, and Turkish. Two additional lecturers are needed for this mission.

Study Abroad participation by CLAS undergraduates is far below that of our peer institutions. Only 161 CLAS students in 2003-04 went on semester or academic year abroad programs. Participation on summer study abroad programs included 255 students on UF and 104 students on non-UF programs. The College sees such a low proportion of our students taking the opportunity for international experience as an indication that we lack the opportunities needed by all students to succeed in the modern international arena. The College can only succeed in becoming one of the top arts and sciences institutions in the country if more students study abroad and UF's programs become the study abroad experiences of choice. Our goal is to increase the proportion of students with international experiences through one-credit spring break add-ons, and programs attractive to students in sciences.

(ii) *Enhancement of Diversity*

The pluralistic intellectual environment of the College is enhanced by squarely facing the intellectual contributions of diverse students, scholars, and emerging centers and programs in the College. As a College, we see the enhancement of diversity as a prerequisite for advancing knowledge and training students to meet the challenges of a global and diverse world. This can be accomplished only if an effort is made to work on undergraduate, graduate, and faculty diversity enhancement at the same time. To ensure this, the College is developing ways of retaining the best faculty and students who come from diverse backgrounds. Specifically, the College has reviewed and reformulated the Associate Dean for Minority Affairs position and is implementing a plan that effectively brings together recruiting and retention from incoming students to retiring faculty. We also seek to add a Diversity Specialist in an administrative position to assist departments in recruiting minority members.

We will target areas where we focus on building connected strengths rather than add uniformly across broad diffuse areas. The faculty research growth areas will be in African American studies and research of the Diaspora (with links to West African and Caribbean studies). The disciplinary departments supporting this growth will be anthropology, history, criminology, political science, sociology, the Center for Women's Studies (two faculty hires over two years & one staff member), the Center for African Studies and the African American Studies Program (two additional faculty members). A task force also is being established to connect developing programmatic studies and Latino/Hispanic studies in response to high student demand.

Success in these areas will be critical if UF is to move into the top tier of public universities. Situated in the most rapidly growing population characterized by a unique diversity of African American and Hispanic populations, UF will be judged on how well we respond to our demographics and accept the challenges and opportunities of a research institution in the most rapidly changing and diverse population in the new world.

(iii) *Modern Biological Sciences*

The College will focus on our strengths in modern biological sciences: (1) bio-nano-chemistry; (2) ecology and evolutionary sciences; and (3) ecological health for which there is major opportunity for growth in research and graduate student numbers. These programs will foster

strong and well-funded NIH programs linked to other units on campus such as the Brain Institute, Genetics Institute and the School of Natural Resources and the Environment. A faculty hire in proteomics, and an additional staff person and lab technician are needed to complete our faculty group to enter the new UFGI in 2006-07. UF has a special opportunity to reinforce its successful foundation in using physical science technology to probe fundamental biological problems, such as studies of mitosis in real time, understanding the neuroscience of learning, applications of nanoscale systems (nanometer magnetic markers) to therapeutics—all making fundamental quantum steps in our understanding of biological sciences. Of all the nano-science areas, UF could be a leader in the **bio-nano-science** field, and we plan one senior faculty hire and one staff hire with this goal in mind. We also plan to build in the areas of **applied mathematics and applied statistics** where critical links to modern biological sciences can be exploited in liaison with medicine and the phase II of the Brain Institute (one professor, one lecturer and two staff additions are planned). The DNA screening facility in the C.A. Pound Human Identification Laboratory will make UF's forensic science program one of the top programs in the U.S.

In the area of *environmental sciences*, we will continue to strengthen two areas: evolutionary and physiological ecology, and environmental politics. A faculty task force has mapped out a path that would make the overlap between the political and environmental sciences unique at UF. The appointment of a director, from within the CLAS faculty, to coordinate research and training issues in this area is planned. A senior hire in environmental economics also is the key to anchor this group in the social sciences; a fiscal officer and an office manager are also needed. The Land Use and Environmental Change Institute (LUECI) will expand the analytical science component of the environmental sciences with mass spectrometer and rare-isotope analysis capabilities (federal funding plus state matching). Studies currently ongoing in the environmental sciences are collaborations among those in comparative genomics, strengthening both groups.

(iv) *Astronomy and Astrophysics*

The successful development of the instrumentation program in astronomy needs to be extended to astrophysics and experimental particle astrophysics. Linking the strong particle physics programs in physics with the strong astronomy programs with a joint hire at the assoc. professor level will create a mutual strength that reinforces each component and help set the stage for top-level (Nobel Prize class) hires. We plan to build our experimental particle astrophysics program, adding a junior hire and an engineer who will link directly to the accelerator physics group of Guenakh Mitselmakher and also the LIGO group (UF, MIT, Caltech). One new office staff person is needed for the group. The goal is for UF to become one of the leading institutions for one of the Deep Space Probes projected by NASA.

(v) *Social Sciences*

The College has consciously developed ways for social science departments to work together. Some of this has been accomplished by encouraging joint hires with traditional and new area studies (African, European, and global Studies), and some by direct investment in individual departments such as political science and psychology. The growth areas in the future will be in the applied social sciences (criminal justice, society and law; communication sciences and disorders, anthropology, psychology), as well as in expanding the reach of the social sciences to international arenas. To that end the College is committed to increasing department expertise in Middle Eastern and Arabic studies, Asian studies, and Latin American studies through hiring and support. Specific areas of growth include:

(a) *Government Studies/Public Policy Center*: The College proposes to create a center to train future leaders for public service that would focus on a new degree track or new BA/MA degree in public policy studies (political science). The program would also have an exchange program to

bring leaders, parliamentarians (including Latin American legislators), and policy makers to campus to lecture and train students. The goal is to create a center similar to the Kennedy School of Government at Harvard but focusing on issues relevant to our geopolitical sphere (economics and politics of integration of the Americas, Hispanic/Latino politics, immigration policy, gender, race and ethnicity in public policy). This would be the academic component of the proposed Graham center.

(b) *International/Interactive Link to Environmental Sciences:* One of UF's strengths is the scientific research in land use and environmental change and also studies of lake drillings and related fresh water issues. CLAS will plan to develop large-scale proposals (such as SEON) with the NSF and SE university partners to create an ecological observatory in the southeast. We will develop similar programs with other nations that have comparable interest in research of fragile ecosystems (Amazonia, Guatemala, Botswana and Vietnam). Only a fraction of this can be approached without UF support.

(c) *Criminal Justice, Society, and Law* is an emerging department (previously part of Sociology) that has gained prominence, especially because of the joint programs between CLAS and Law. Grants, undergraduate majors, and graduate student recruitment and placement are all indicators of their success. Psychology, especially in clinical and social psychology, is also recognized as the place where top scholars want to work so that their careers can flourish.

V. CHALLENGES AND OBSTACLES

Hiring in leadership positions for the major areas of growth is key to those areas being successful (reaching top 10 status). We have been successful in only a few cases where CLAS has deliberately invested scarce resources for leadership hires [Villalon–African studies, Merz–Combinatorics/drug design/chemistry, Ge and Eikenberry–astronomy, Copp and Jubien–philosophy, Kugelmass–Jewish studies, Harrison and Baber–African American Studies, Doug and Pam Soltis—botany and genetics]. These hires were essential to move programs forward and have had appreciable impact in well-focused areas, but have been too few to move the College as a whole. We are in serious need of endowed chairs and professorships to be successful in the future. Private fund raising must be expanded to achieve this goal.

The changes in management of human resources and the changes incurred with the introduction of People Soft require that we add some central staff (at least 1 person in 2005) and two others in large departments where we experience problems (mathematics, history and/or chemistry)

The principal barriers to leadership hiring are:

(i) *Start-up costs*

Funds are needed for all the science areas: physical, biological, and genetics. For FY 05 we needed \$4.5M in start-up funds with very limited support (\$0.6M) from resources outside CLAS. UF will fall short in its expressed goals unless sources for competitive start-up funds can be found. CLAS has had to hold filling some DROP lines and spend all available IDC for start-ups.

(ii) *Space*

In nearly every case, new faculty hires require significantly more research space than the retiring faculty they are replacing. Finding adequate space for these hires is a continuing challenge that we have only partially been able to meet. Some relief will be provided by the new Genetics Institute and the Nanofabrication building (although we will benefit only minimally from the latter). The next major initiative is the joint proposal with the College of Medicine to build an Interdisciplinary Biosciences Building to create a state of the art effort at the intersection of basic

biological/ bio-nanosciences and medicine. If we are to continue to hire top-notch researchers who have strong grant-obtaining profiles, the university must invest significant capital in the creation of modern laboratory space for them (including appropriate levels of start-up funds for equipment, etc).

In the humanities and social sciences, we also are severely limited by space constraints. There is minimal relief in sight as Ustler Hall (formerly the Women's Gym) is renovated during the next year, but no other significant new space can be anticipated in the immediate future. As we continue to be successful in obtaining Title VI awards, growing our graduate programs, and luring important senior and minority faculty to UF, we are increasingly constrained by a lack of suitable space. Long-term solutions are on the horizon (the renovation of Newell Hall and the liberation of space as a result of AT's move to the Hub), but even with the completion of these projects several years from now, we will almost certainly gain only enough space to provide for existing faculty and will have made little headway in providing space for program growth, graduate students, teaching assistants, adjuncts, and lecturers.

Germane to the College's mission, but strictly not under the control of the College, is the issue of classroom space. As other colleges shed undergraduate majors, CLAS is inheriting many of these students, putting pressure not only on faculty resources (for Spring 2005, enrollment management paid nearly \$250,000 to adjunct faculty to meet student demand for CLAS courses), but also on the physical spaces needed to teach the high-demand science laboratory courses. For example, the demand for chemistry labs, now being offered in antiquated teaching labs in Leigh Hall, was so great that full-day Saturday lab schedules almost became necessary to meet that demand. There is parallel growth in other sciences, and the university is rapidly running out of room to teach the critical tracking course labs in these hard sciences. Unless the university addresses this issue, it will not be in a position to keep pace with student demand, and therefore meet its commitment to students so that they can remain "on track" for their majors. Although a central component of the CLAS argument for a new Life Sciences building has been the need for faculty research space for our expanding science departments, an equally important factor now clearly in focus is the need for that building to include significant teaching lab space.

Of critical importance to the College is better space for the mentoring of minority students. Currently these students are served in extremely cramped quarters on the third floor of a non-centrally located classroom building. This location sends a strong negative message to these students that we are not serious about creating a welcoming environment on campus for minority students. We need to take prime central space, preferably the first floor of Grinter Hall soon to be vacated by the International Studies Center, and renovate it to send a strong positive message to minority students that we are serious about creating a welcoming atmosphere for them.

(iii) Graduate Student Growth

The reputation and ranking of a research institution is, in large part, dependent on the quality of the graduate students produced each year. We need to take serious steps to improve both the quality of our graduate students and the number of students in areas critical to the strategic plan. Recruiting the best graduate students depends on the reputations of the faculty mentors and the resources and benefits available. CLAS plans to continue to grow its graduate student population at the rate of more than 100 students each year for the next two or more years. This will require: (a) approximately \$1.5M per year in growth funds and (b) some space relief to provide modest office space for graduate students. Excellent programs are also dependant on the space and equipment needed for laboratories in the sciences, research and project space in the social sciences and humanities meeting and project rooms. The CLAS goal is to provide every alumni award winner with laboratory or study space so as to more closely link graduate student training

with faculty research and scholarship. This estimate of necessary funds is conservative, as we need to also address at a university level the stipends and benefits provided to incoming and current graduate students. Many of the CLAS units receive applications from the very best applicants, but convincing these students to attend UF continues to be a challenge since prestigious awards such as the Alumni and Presidential Awards now lag far behind peer stipends. CLAS will focus on growth, but not at the expense of quality.

Graduate student research opportunities are expanding in the College. However, support for professional development through dissertation writing awards, travel awards to present materials, and spot-research awards to collect necessary and limited data all need to be improved so that the outstanding graduate students who are recruited to CLAS are retained and succeed in their careers.

(iv) Information Technology Infrastructure

The importance of information technology increases each year as faculty, staff, and students increasingly rely on electronic media to carry out their jobs. On the other hand, the funding for maintenance and expansion of the IT infrastructure has been shrinking. There has been *no* IT budget for the past three years. Consequently, many faculty and departmental staff are using desktop computers that are at the end of their useful lives since they cannot run new operating systems or newer applications, and replacement parts are no longer available. With more than 1,000 faculty and staff members in the College, approximately \$300,000 per year is needed to keep the desktop computers on a four-year replacement cycle.

A plan was floated a few years ago to save university funds by eliminating various computer labs. Rather, students would bring their own laptops to class, and we would simply provide wireless connection in the classrooms. This plan has now been seen to be doomed to failure. This is because many disciplines, especially languages, use expensive software that is licensed for single installation. Thus, 30 licenses in a lab will only service the few hundred students who have lab access. In addition, it is a financial burden to make the students buy expensive hardware. In the College, this would include the three language labs and five writing labs, comprising about 250 computers. These machines and their servers are all past the end of their life cycle and need to be replaced on a four-year cycle at a cost of approximately \$70,000 per year. We will close down one language lab during the summer of 2005. In addition there is pressure to build more language labs for less commonly taught languages and more writing laboratories. A similar analysis applies to the Networked Writing Environment labs with their 150 computers and infrastructure.

Finally, to meet the demand of ever increasing services by faculty, staff, and students, the CLAS computer infrastructure (mail servers, web servers, storage, etc.) needs to be maintained, replaced, and upgraded. This cost is of the order of \$100,000 per year. The total continuing cost for CLASnet infrastructure is at minimum \$500,000 per year continuing.

(v) Undergraduate Issues

CLAS is responsible for supplying the majority of core undergraduate courses for the university, and we have the largest number of undergraduate majors by far, among all Colleges. With nearly 4.5% growth each year for the last two years and 10-12% growth in graduate students, the CLAS infrastructure has been seriously stressed financially. The extra teaching needed for the undergraduates would have required adjunct appointments totaling about \$1.2M if we had maintained classroom sizes. Unfortunately class sizes could not be maintained, and UF has fallen

to close to the bottom of AAU institutions in this category, after being 5th from the bottom two years ago.

The President's internationalization initiative cannot legitimately advance without a massive makeover of foreign language offerings. We need to keep language instruction in departments and organize more teaching resources, especially if we are going to change UF's foreign language requirement, as recommended strongly by the SACS review. Despite constraints, we have been able to expand foreign language offerings in many "less commonly taught languages," but we are still unable to keep up with the demand for language instruction among undergraduate and graduate students. We must address this in order to keep the university's commitments to SACS.

Our pre-health student population (headed for medical school or other health-related professions) is expanding exponentially. We can barely service it, despite doubling the number of advisors (from one to two), hiring lecturers and faculty in biology, chemistry and physics, and reshuffling support staff to handle the demand. The need for life sciences is high and will remain so for some time. We have reached the absolute maximum capacity in the introductory chemistry classes and organic chemistry laboratories. Projected growth takes us beyond our ability to meet the demand even if we offer lab classes six days a week. UF leadership needs to plan for these developments on a long-term basis or consider limiting enrollment at the undergraduate levels to a level we can manage at current capacity.

Finally, the University Writing Program (UWP) must be regularized. During the past two years, the program has suffered from a lack of vision and a long term goal. At present, the program is being held together by an interim director who is doing an excellent job. However, his term is up in the fall of 2005. A well-defined plan for the next steps in providing a high quality program, especially with a new curriculum for juniors and seniors. Although authorization has been given to hire a director and up to two additional lecturers, a long term plan is essential. The UWP oversight committee chaired by Jack Sabin has been charged to prepare a plan for presentation to the Provost as the highest priority.