

College of Arts and Sciences
Fiscal Year 2009 Budget Proposal
“Student Success and Research Excellence for the 21st Century”

The College of Arts and Sciences is by far the largest college at UTK, and it serves the most diverse collection of Departments, Schools, and Interdisciplinary Programs. This year’s budget proposal continues to focus on goals of academic excellence that will help us to achieve the markers needed to attain membership in the AAU. We frame this year’s requests within the University’s Strategic Goals.

The College anticipates that FY09 will be fiscally challenging. Nevertheless, we view this document as a forward-thinking document that will provide a framework for our internal distribution and redistribution of funding. In addition, we have been formulating a new A&S Strategic Plan, which will be launched later this calendar year, and we have allowed that process to inform our priorities here.

Section I – Annual Budget Priorities

1. Progress Report on FY08 Goals

Priority 1: Continuation of the College Starting Salary Initiative

Goals: (a) To complete our initiative to repair the salary inversion among assistant professors caused by our Starting Salary Initiative, and (b) To make certain that we can continue to offer the more competitive starting salaries by augmenting under-funded vacant faculty lines.

Status: (a) The Provost has indicated that he wants to address salary inversion Campus-wide as part of his efforts to address faculty salaries. A&S did not receive funding for this request in FY08. (b) The College received about **\$73,500** in recurring funds to assure that none of our starting positions are “under water.” We are grateful for this assistance, which will help us to continue our successes in faculty recruiting.

A&S initiatives: We haven’t recalibrated starting salaries in order to not exacerbate the salary inversion problem. Nevertheless, we have occasionally adjusted starting salaries upward in response to market competition or diversity issues. We plan to adjust starting salaries in response to the latest Oklahoma State Salary Survey as soon as we are able to do so.

Priority 2: Increased staffing needs in Information Technology and Financial Management

Goal: To improve staffing in strategic areas that have a particular impact on faculty productivity.

Status: We requested **\$263,802** in recurring funds to create three new shared IT positions, to create two new financial management staff positions in departments that have greatly expanded their grant funding, and to upgrade four existing financial staff positions. These requests were not funded.

A&S initiatives: When any of these mission-critical positions becomes vacant, we consider upgrading the position via the PDQ process of HR. This process has resulted in six upgrades. In addition, we reallocated funds to create one of the highest priority positions: A new financial staff position in the Department of Geography, which was also recommended in the Department’s 2007 Academic Program Review.

Priority 3: Initiatives to improve the size and quality of our graduate programs

Goal: To increase the number of graduate students in the College, and to offer more competitive stipends.

Status: We proposed (a) the repair of under-funded <50% GTA lines in two departments (Geography and Psychology), and (b) competitive stipend increases in five selected departments (English, History, BCMB, EEB, and Microbiology). The total requested, **\$703,802** in recurring funds, represented our largest request of FY08. It could have been considerably larger insofar as nearly all of our graduate stipends are well below market. This request was not funded. We are pleased that, in a separate initiative, the Graduate School has granted six new fully funded (total funding **\$106,000**) GTA lines with fee waivers (four in Psychology, and two in EEB/Math).

A&S initiatives: We are exploring other mechanisms, particularly development, to provide higher graduate stipends. We will continue to push for mechanisms that will allow us to support GTAs in

preference to Lecturers, and that will make the funding of GRAs less expensive. We have also begun selective reallocation of GTA lines based on scholarly excellence and teaching needs.

Priority 4: Strategic new faculty lines for excellence and growth

Goal: To obtain funding for new faculty lines in selected areas.

Status: A total of **\$328,000** in recurring funds and **\$174,000** in one-time funds were requested to support two new teaching postdoctoral positions in Mathematics, and four new faculty lines in selected high-need areas. One of the postdoctoral positions in Mathematics, which was promised as part of the negotiation with a new external Head, was funded. The other requests were not funded.

A&S initiatives: Our highest priority faculty position was an Assistant Professor of Violin in the School of Music. We created that position internally via reallocation of a vacated faculty line.

1.1 Additional Initiatives Funded in FY08

In 2007, Provost Holub undertook a Campus-wide initiative to reduce gender inequities in faculty salaries. Based on our analysis of relative in-rank salaries and scholarly productivity of the 130 tenure-line female faculty in the College, we recommended gender-equity increases for 50 of them, totaling \$184,600 in recurring funds. We received **\$166,334** in recurring funds in response to this request.

2. Non-Recurring Expenditures

3. Projected vs. Actual Budget Reports

The summaries of sources and uses of non-recurring expenditures and historical reports of budget variances are given in Forms 1 and 2 at the end of this document.

4. Report on Position Vacancies

Personnel vacancies are summarized in Form 3, which is at the end of this document. Per usual, the lion's share of the open salaries are in category of tenure-line faculty, and we will focus on those positions here. For Academic Year 2008-09, 20 of our 22 departments/schools are anticipating searching to fill tenure-line faculty positions that are currently vacant or will be vacant due to resignation or retirement. The total number of searches projected for AY 08-09 is 31, which will represent a projected salary commitment of \$2.0-2.2M. For the current academic year (07-08), we have 32 active searches; thus far, six of those searches have led to successful hires, and the remainder are still in progress.

The College does not hold vacant lines open as a matter of course. In situations where we have declined to approve searches, we have done so for programmatic reasons. In one instance this year, for example, we have required a department to complete a draft of a strategic plan before allowing them to search. We have also had to defer searches in some of our units because of the continuing double-whammy of (a) insufficient space for the new hires (new research-active faculty often require more space than the faculty they replace), and (b) escalating start-up costs, particularly in the sciences.

5. Allocation of Tenure-Line FTE Faculty Given Current Base Budget: A Three-Pronged Approach

The Provost has stated that he would like an indication of the "FTE target size of each department given current base budget," i.e. an exercise in how faculty resources could be reallocated within a College to maximize operational effectiveness. In the College of Arts and Sciences, we are extremely interested in optimizing the use of tenure-line faculty, which is our most precious (and expensive) resource.

Reallocation within our College is a significant challenge, largely because the College as a whole is tremendously under-resourced with respect to faculty FTEs. In last year's Budget Proposal, we presented the data comparing the sizes of our overall faculty, and those in three core departments, to those at three aspirational peers of comparable undergraduate enrollment (UC-Berkeley, UNC-Chapel Hill, and U of Virginia). Those data indicated that our College faculty is too small by at least 200 faculty members

as compared to those peers. We have worked with Richard Tucker of the Office of Academic Affairs to examine the sizes of our disciplinary faculty compared to a larger universe of peers and aspirational peers. The data in the following table compare the sizes of the tenure-line faculty in five core departments at UTK with those at three peers (Georgia, Kentucky, and LSU) and three aspirational peers (Maryland, UNC-CH, and UVa). We also compare and rank ratios of the total undergraduate enrollment to the number of tenure-line faculty in each department.

Comparisons of the sizes of five core A&S departments at UTK with those at three peer and three peer aspirational universities. The column labeled UG is total undergraduate enrollment. The columns under each discipline give the number of tenure-line faculty, and the ratio of tenure-line faculty to undergraduate enrollment. The number in parentheses is the rank of the latter ratio within the set of seven institutions (Rank 1 has the lowest ratio, and so forth). *Data compiled by Mr. Richard Tucker, OAA.*

Institution	UG	Chemistry		English		Mathematics		Political Sci		Psychology	
UTK	20,619	25	824 (6)	38	542 (6)	35	589 (5)	17	1212 (7)	25	824 (5)
Georgia	25,437	25	1017 (7)	60	423 (4)	34	748 (7)	37	687 (4)	39	652 (3)
Kentucky	19,292	24	803 (5)	29	665 (7)	31	622 (6)	20	964 (6)	24	803 (4)
LSU	24,583	32	768 (4)	56	438 (5)	50	491 (3)	26	945 (5)	21	1170 (7)
Maryland	25,154	39	644 (3)	60	419 (3)	52	483 (2)	59	426 (3)	29	867 (6)
UNC-CH	17,124	35	489 (1)	45	380 (2)	47	364 (1)	73	234 (1)	36	475 (2)
UVa	14,676	26	564 (2)	56	262 (1)	29	405 (4)	42	349 (2)	34	431 (1)
<i>Mean</i>	<i>20,984</i>	<i>29.4</i>	<i>714</i>	<i>49.1</i>	<i>427</i>	<i>39.7</i>	<i>529</i>	<i>39.1</i>	<i>536</i>	<i>29.7</i>	<i>706</i>

In spite of the challenges posed by our resource base, we take the notion of reallocation of faculty lines among units in the College very seriously. With the launch of the College’s new Strategic Plan later this semester, we anticipate undertaking a reallocation analysis using three primary criteria:

(1) *Teaching and advising capacity.* In order to address the strategic goal of *Student Success*, our allocation of faculty FTE must be sensitive to student demand in two areas. First, we strive to deliver as much of our instruction as is practical using tenure-line faculty. Second, because our majors are advised by the faculty in the unit, we must be sensitive to the demand among units for undergraduate majors.

(2) *Research, scholarly, and creative excellence.* Our College continues to be driven by the stretch goal of achieving the scholarly gravitas associated with AAU universities. Most of the markers relevant to AAU status relate to the quantity and quality of research and other creative activities, which mainly addresses the overall strategic goals for *Research*. We believe strongly in investing in scholarly strength, and that principle has helped guide our allocation of new faculty FTE. We will likewise use scholarly productivity as a guide in reallocation among units. In conjunction with our Strategic Plan, and that of the University, we are refining the metrics we use to measure scholarly productivity in such a way that we will be able to assess the relative qualities of our Departments and Schools.

(3) *Coherence to our Strategic Plan.* The strategic planning process that we began in Fall, 2007 has been a very successful exercise in generating operating principles and goals that will guide our College resource allocation. We believe that our resource allocation must be driven in part by the contributions that units make to the overall strategic goals of the College. We are currently refining the Strategic Plan and will be vetting it among various internal and external stakeholders, including the Departments and Schools. We also want to make certain that our strategic goals are aligned with those of the Campus Strategic Plan, which will also be launched later this year.

We believe that this “three-pronged” approach will provide the ultimate guidance as to how to reallocate faculty FTE within a base budget that is too small in comparison to our aspirational peers. The

current allocation provides a snapshot of one potential distribution of faculty FTE among the units. We believe that we will be able to use our three criteria to undertake a “gain and pain gradient” analysis. In essence, we can ask ourselves the following hypothetical questions: (a) Suppose we were to increase the size of the faculty by 10% (as an example). Where would the new FTE be placed most strategically using our principles above? (b) Suppose we were to decrease the size of the faculty by 10%. Where would those FTE be removed most strategically? These analyses would provide measures of the most and least needed faculty positions in the College. The most rational reallocation plan would move faculty FTE from the least-needed filled positions to the most-needed new positions, assuming that the gain that results from addition is greater than the pain associated with elimination. Because of the small sizes of our departments relative to peers, we have not readily identified significant reallocation that can be achieved under present curricular and programmatic guidelines.

Unfortunately, our ability to reallocate faculty FTE among units is constrained by the available space. For example, because of Psychology’s need for increased teaching and advising capacity, we expect that our analysis will indicate that we should be investing more faculty FTE in that department. At present, however, we simply do not have space available to house any new faculty close to the present Department. The space situation in most of our units is exacerbated by our successful hiring of outstanding new faculty, who often require greater space allocation than the faculty they are replacing.

Finally, we note that our College does consider other personnel areas in which reallocation can improve our overall performance. For example, we recently made the tough choice to close the graduate program in the Department of Religious Studies. After analysis of the efficacy of that program, we determined that the fee waivers and under-funded stipends currently assigned to the program could be reallocated to achieve greater impact elsewhere in the humanities, as will be discussed later.

6. Top Goals

Our top goals are summarized in Form 4. In our planning discussions with individual departments, and with the natural groupings of our departments (Humanities, Social Sciences, Natural Sciences, and Fine and Performing Arts), some recurring themes emerged that are aligned with our nascent College Strategic Plan: Teaching capacity, especially in upper-division undergraduate courses; graduate education, especially the size of doctoral programs and the magnitude of graduate stipends; growing our faculty to the size of aspirational peers, which is not feasible at present because of fiscal and spatial constraints; and enhancing our interdisciplinary and multidisciplinary activities at both the undergraduate and graduate levels. We will detail our goals in the next Section of this document.

7.1 Development Campaign Priorities

Based on our fund-raising successes to date, the Campaign goal for our College has been revised and increased from \$50M to our new working goal of \$60M (which we plan to surpass!). We have articulated fundraising priorities that total just over \$82.6M, which break down as follows:

Strategic Area	Identified priorities	% of priorities	Total Raised as of 1/31/08
Faculty Support	\$34.5M	41.8%	\$15.3M
Globalization/Diversity	\$4.5M	5.4%	\$1.5M
Research/Economic Dev.	\$4.0M	4.8%	\$2.5M
Strategic Initiatives	\$7.4M	9.0%	\$6.0M
Student Access/Success	\$16.2M	19.6%	\$8.5M
Facilities Upgrades	\$16.0M	19.4%	\$10.3M
<i>Totals</i>	<i>\$82.6M</i>	<i>100%</i>	<i>\$44.1M</i>

As of January 2008, the College was credited for having raised over \$44.1M or 74% of the revised campaign goal of \$60M. Major donations are leading to the construction of a new Music

Building, and to fulfillment of the NEH Challenge goal for the Marco Institute. In calendar year 2007, our College logged 247 significant contacts with major donors (195 of which were personal visits).

We have identified our top 36 prospects that we plan to solicit or close in 2008. The total aggregate amount for these prospects is \$15,225,000. With a full staff now in place, we have identified 428 prospects for cultivation and/or solicitation in 2008.

Development affords one of our best opportunities to close the gap between our aspirations and the available funding. Two particular goals on which we will focus in our new efforts are (a) To enhance our scholarly profile and financially support our advanced undergraduate students, with an emphasis on nurturing our College's best undergraduates (*Student Success, Economic Development*), and (b) To acquire funding for additional support to attract top graduate students and promote inquiry-based learning by involving these students in leading-edge research (*Research, Economic Development*). We will continue, when feasible, to seek funding that relieves fiscal pressure on our budget, which will help assure that our resource base allows us to keep up in our competitive academic environment.

7.2 Course/Program Fees

Costs of consumables in both the sciences and the arts continue to increase while "continuation" operating and equipment budgets decrease in terms of real dollars. Therefore, in order to provide a quality educational experience, the College is proposing the creation of course fees in some new departments and an increase of course fees in other departments that must purchase expendable materials or equipment.

Section II – Overarching Planning and Budget Concerns

Inasmuch as A&S is the largest College at UTK, we have a critical role in achieving the Strategic Goals of the Campus. We do not view the stated goals as separate unrelated entities—as much as possible, we strive for initiatives that provide synergy among the categories. Our focus will remain on those categories that provide the strongest support for our aspirations to achieve AAU status, and we believe that *Student Success* and *Research Excellence* are those areas.

As mentioned earlier, we have undertaken a planning process in the College, which will lead to the launch of our new Strategic Plan later this year. In this Plan we will articulate six main goals that will guide our future resource allocation: Enhanced teaching and learning, Research excellence, Resources to match our present and future responsibilities, Ready for the World, Creating and supporting diversity, and Multidisciplinarity. Our goals map well onto those of the Campus and the University, but do so within the context of the distinct mission of our College.

Our ultimate aspirational goals are ambitious and realistically are not within sight in the near term. For example, our goal of bringing the size of our faculty to parity with those of aspirational peers would require investments of roughly \$20M in recurring costs for faculty and staff salaries, probably more than \$30M in one-time funds for start-up, and more than 300,000 NASF of new office and laboratory space. We will detail here far more modest requests for some of our highest priority needs. Those that entail a request for new resources, either recurring or one-time, are listed on Form 4. We also realize that we are accountable for the smart stewardship of our present resources, and will continually look for ways in which we can serve the Strategic Goals more effectively with what we have.

1. Restoring the Funding for Upper-Division Undergraduate Classes (*Student Success*)

Requested funding: \$350-400K in non-recurring funds per year for three years

A significant deterrent to timely graduation, and hence student success within the College, is the inability of several departments to offer necessary upper-division courses to both majors and students seeking to fulfill College graduation requirements. Several years of 4200+ first-year classes, as well as the influx of better students because of the HOPE scholarships, are creating unprecedented pressures,

particularly in the social sciences. If changes are not forthcoming, the recent modest gains in retention and graduation rates will be erased as students are simply forced to wait for necessary classes.

Historical Summary. The shortfall in upper-division teaching capacity is not a new situation at the University of Tennessee. Extra money has been temporarily pumped into departmental budgets in several ways over the last two decades. At one point in time there was an Evening School. Numerous departments took advantage of this unit to provide instruction they could not otherwise afford. Evening School money flowed freely, providing extra classes at all levels. There were virtually no restrictions on the money the Evening School passed on as it repeatedly urged departments to make complete degree programs available in the evening time periods.

The Evening School was eliminated in 2001, because it was losing large amounts of money. At that time the bill for upper-division teaching moved to “extra-section money.” Extra-section money was money paid to departments for supplemental teaching. Although the money was often used for staffing lower-division classes, in several departments that had been experiencing an influx of students during the late 1970s and 1980s the extra-section money went into upper-division teaching. There was no limitation placed on what the funds could be used for, as long as the classes were needed.

In the Spring of 2003 Vice Chancellor Anne Mayhew eliminated “extra-section money,” with no warning. The classes that had been taught by Evening School funds, and then extra-section funds, were left with no support, because the new funding system was earmarked for Gen Ed classes only. Within weeks of announcing the Gen Ed funding restrictions, Dr. Mayhew modified the plan to include upper-division classes, or classes that were used to meet requirements not imposed by the departments themselves, i.e., classes that met college requirements or requirements imposed by other units on campus.

The recent shift to restrict Gen Ed funding to Gen Ed classes only, has once again left several departments with no funding source for their upper-division instruction.

Scope of the Problem. In Fall 2007, because the Gen Ed guidelines were not received prior to the staffing and opening of Fall classes, **\$194,198** of Gen Ed funding was used for classes that were not strictly Gen Ed. In the Spring of 2008, after the guidelines were imposed, only one non-Gen Ed course was funded by Gen Ed funds, an upper-division course in Africana Studies that was approved early in the Fall semester as part of the Ready for the World initiative. (Students will take the course on campus this Spring, and then travel to Mexico in the Mini Term to experience firsthand what they studied on campus.) According to their pre-Spring projections, departments needed **\$157,133** to offer their necessary upper-division classes. The College supplied a portion of those funds, but departments also cut back on their offerings (as well as their projections). There is no reason to believe that the needs for Spring would normally be very much different from the Fall figures.

The upper-division teaching shortfall does not extend uniformly across the College. It is concentrated almost exclusively in the social sciences, which are also, not coincidentally, where the greatest number of majors in the College (and the University) are found. The two departments which have the most graduates in the College, and in the University, are Psychology and Political Science; these are also the two departments with the greatest needs. Political Science, a department with 17 tenure-line faculty (and 188 graduates in 2006-07, the second highest number of graduates in the University) requires approximately **\$130K** in additional funding each year. Psychology, the most popular major in the University (399 graduates in 2006-2007, taught by a professorial staff of 26) requires approximately **\$100K** a year in additional funding for upper-division classes, even though it has for years regularly offered classes of 100+ at the 300-level, and 50-60 at the 400-level. These departments are followed by Sociology (99 graduates, 13 professorial faculty) and History (91 graduates, 25 professorial faculty), which need smaller, but significant amounts, as well as Anthropology and Geography, which require modest supplements to fund their upper-division teaching.

Summary. Because we have never truly met the demand for upper-division classes in the social sciences, it is difficult to project what the total shortfall actually is. A sum of **\$350K-\$400K** would probably be required to meet the present needs. The academic demographics of the student body are changing, however. As retention improves, more students will be progressing towards graduation, and there will be a larger percentage of juniors and seniors on campus. (In past years, a number of students completed their freshman and sophomore years, and then left.) These HOPE scholarship students will be

students who plan and expect to complete their degrees in four years. But each class of 4200+ simply makes the bottleneck worse. There is simply not enough money to get the necessary social science classes taught, and not enough professorial staff to teach the hundreds of students who are majoring in these areas. Adjunct lecturers would appear to be the short-term solution. Summer school, which is not a term paid for by the HOPE scholarships, would not seem to be an answer for these students, who are soon going to be facing many closed classes.

We are proposing that this funding be provided as non-recurring funds with a three-year commitment. During that time, we will undertake two important areas of assessment of this situation: (a) We will get a better sense of whether the better-prepared students entering UTK shift the demographics of the majors of graduates. We are already seeing dramatically increased demand for lower-division courses in science and mathematics, which could augur for significant departmental shifts in the demand for upper-division courses. (b) We will continue to work with our departments to make sure that the instructional capacity of the faculty is used in the most academically effective and efficient ways, including curricular reforms where appropriate.

2. Enhanced Graduate Student Programs (Research, Student Success, and Economic Development)

Requested funding: \$702,021 in recurring funds

A component of our new A&S Strategic Plan will focus on the enhancement of its terminal degree graduate programs, particularly at the doctoral level. This effort has two components, namely growth of quality graduate programs and the funding of more competitive stipends.

Growth of our Graduate Programs. As part of our Strategic Plan, the College hopes to increase the size of its doctoral programs by 20% over the next 10 years. Compared to benchmark and aspirational peers, the ratio of graduate students to faculty members at UTK is too small. Last year we proposed two strategies to increase the number of graduate students while preserving the same teaching capacity. We will reiterate and refine those proposed strategies here.

Increasing the number of GRA positions. Presently, the College has roughly 850 state-funded GTA and GA positions and about 120 grant-funded GRAs, for a ratio of about 7:1. While we don't yet have benchmark data from peer institutions, we believe that this ratio is too high. To lower it while preserving the instructional capacity of our GTA cohort requires that we increase the number of students supported on grants as GRAs. Two barriers exist to doing so: (a) inadequate external funding, and (b) the high expense of supporting a student as a GRA on grants. In our FY08 budget request, we proposed a change in the way the University charges graduate tuition to grants. Rather than repeat that argument here, we refer the reader to last year's document.

We are working strategically with the Vice Chancellor for Research to increase our funding, especially in programs such as training grants that specifically provide support for GRAs. Faculty in our College are presently collaborating in a greater number of center-based or multi-investigator proposals (e.g., two IGERTS, one Math-Bio center, on NIH R-25 IMSD, and one NASA Astrobiology center). The two IGERT proposals, which specifically provide support for graduate students, have already been recommended for funding (one of these is centered in the College of Engineering, but includes A&S faculty). The NIH R-25 IMSD is linked to the A&S IGERT and is a program that supports graduate students from underrepresented minorities. We are hopeful that the success we are having will generate the momentum for more large team-driven grants that will provide substantial support for GRAs. In addition to these large initiatives, we continue to push for increases in our individual PI grant funding. As part of our Strategic Plan, we will compile metrics on the percentage of our faculty in the sciences who have grant funding.

Finally, we are grateful that efforts are being made centrally to increase the number of graduate students on Campus. As noted earlier, the Graduate School recently distributed six new funded GTA positions, with fee waivers, to A&S.

Converting lecturer lines to Graduate Teaching Associate lines. Several strong doctoral programs, such as English, Psychology, History and Mathematics, have large general education teaching

responsibilities. Because of shortfalls in the tenure-line faculty teaching capacity, this Gen Ed instruction is typically provided by lecturers. As we pointed out in our FY08 budget request, the conversion of a lecturer to two graduate teaching associates is approximately teaching-capacity- and stipend-neutral; however, the two GTAs require fee waivers, which incur a real cost under the University's accounting principles. We still encourage the University to reexamine these principles to see whether there are methods to account differently for revenue-neutral fee waivers. Until that happens, we are reallocating fee waivers to allow us to effect this lecturer-to-GTA conversion. As an example, in Fall 2008 the College will use four tuition waivers released by the closure of the graduate program in Religious Studies to facilitate the conversion of two lecturer positions to a total of four GTAs.

Competitive Graduate Stipends. As we pointed out in the FY08 budget document, offering more competitive graduate stipends is one of the most-needed steps for our graduate programs to achieve greater research and scholarly productivity. Our benchmark studies of discipline-specific stipends has indicated a roughly \$3M market-driven shortfall in our funding for current graduate stipends. Last year we proposed improving the stipends in five strong departments. In addition, we proposed repairing the stipends in two departments that have under-market sub-50% GTA positions. This year we are reiterating that request, which was FY08 Budget Priority #3.

Increasing appointments to 50%. The Department of Geography has seen growth in demand at both the undergraduate and graduate levels. Because of past budget cuts, the Department has GTA positions funded at a variety of effort levels—5 at 25%, 17 at 40%, 4 at 45%, and 1 at 50%. The Department's recent Academic Program Review recommended that the tier-system be eliminated. In addition, current stipends are not competitive, especially for Ph.D. students. We are requesting **\$140,000** to offer more competitive stipends in Geography, and to make all of the appointments 50%.

Like Geography, Psychology has a large number of GTA appointments at the 40% level. We propose to increase those appointments to 50%, which will create competitive stipends and provide additional much-needed teaching capacity. We are also requesting an additional \$11,000 in stipend increases to repair a structural problem related to Clinical Psychology GTAs who are supported in part by an external contract. The total requested is **\$213,021**. A detailed breakdown of expense is available for both programs on request.

Selective stipend increases in strong departments. As we did last year, we request funding to increase the current GTA stipends in five of our quality graduate departments (see FY08 budget request for details):

BCMB: A total of **\$96,000** requested to raise the stipends on 32 GTAs from \$17,000 to \$20,000.

EEB: A total of **\$51,000** requested to raise the stipends for 34 GTAs from \$17,500 to \$19,000.

English: A total of **\$68,000** requested to increase 34 Ph.D. stipends by \$2,000.

History: A total of **\$60,000** requested to raise the stipends on 10 GTAs from \$10,000 to \$16,000.

Microbiology: A total of **\$74,000** requested to raise the stipends on 32 GTAs from \$15,300 to \$19,000.

(The Department will use endowment funds to add \$1,000 to each entering GTA.)

3. Multidisciplinary Scholarship and Instruction (Globalization, Research, Student Success)

Requested funding: \$96,000 in recurring funds (\$32,000/yr for three years); \$48,000 in one-time funds (\$16,000/yr for three years); six fee waivers (two per year for three years)

Arts and Sciences is home to 14 majors in Interdisciplinary Programs (IDPs). These majors represent the University's only formally-established curricula for interdisciplinary undergraduate education. Several of the 14 majors, including four of the five largest majors (Global Studies; Environmental Studies; Africana Studies; Language and World Business), directly address questions of globalization and prepare students to become engaged members of a diverse global society. Faculty who teach and advise students in these majors make substantial contributions to the College's efforts to insure that our graduates are "Ready for the World."

The College's Strategic Planning Committee has identified the IDPs as an opportunity for targeted investments that will both support excellence in scholarship and instruction, and serve three of the University's broad strategic goals: *Student Success*, *Research and Scholarly Activity*, and *Globalization*. These investments will allow the College to: (1) add new lower-division multidisciplinary courses to prepare students in STEM (science, technology, engineering, and mathematics) fields for their future careers; (2) foster multidisciplinary graduate-level scholarly activity in the Humanities; and (3) strengthen the College's efforts to prepare students for life in an increasingly interconnected world.

New Multidisciplinary Courses for STEM Students. We live in a world characterized by both rapid globalization and rapid technological change. As the University's graduates in STEM fields enter the global scientific and technological workforce, they will be asked to apply their expertise to pressing societal needs that transcend both disciplinary and national boundaries, such as the management of ongoing global climate changes; combating the spread of emerging infectious diseases; and providing potable water to residents of densely-populated megacities. Introducing our STEM graduates to these problems in their first and second year at UTK will better prepare them for these tasks, and could be the starting point for a longer-term curriculum infusion effort intended to connect the content of upper-division STEM courses to societal needs.

The department heads of the College's Natural Sciences departments jointly propose to develop multidisciplinary, team-taught, lower-division courses that will introduce students in STEM majors to current multidisciplinary problems. These courses can be envisioned as a natural extension of the Provost's FYS129 initiative. Sample topical foci that the heads have suggested for these courses include energy usage and global climate change; genetic science and technology; and the social implications of the nanoscience revolution. The College requests a total of **\$16,000/yr for three years in one-time funds** to provide one-semester course reductions for two faculty as they develop the first of these courses.

Research and Scholarly Activity — Multidisciplinary Humanities Scholarship. Our Marco Institute for Medieval and Renaissance Studies grew out of multidisciplinary scholarship first fostered by one of the College's 14 IDP majors, namely Medieval Studies. The Marco Institute's success in raising the University's national profile in humanities scholarship demonstrates that even relatively small, but well-targeted, investments in multidisciplinary scholarship and instruction can reap substantial dividends. We propose expanding our multidisciplinary programs in the humanities, especially in doctoral programs.

The College's Humanities department heads propose to increase the division's scholarly output by establishing a pool of GTA lines that will support Ph.D. students pursuing multidisciplinary research in Humanities. These GTA lines will allow doctoral students to pursue scholarly projects that transcend disciplinary boundaries and that stimulate scholarly activity in departments that have no graduate programs of their own. For example, one of these lines might support a Ph.D. student whose dissertation research focuses on ancient history and archaeology; such a student might be formally housed in History while collaborating closely with Classics faculty. The ability to work with Ph.D. students will also serve as an important retention initiative for our outstanding faculty in undergraduate-only departments. The College requests **\$32,000 in recurring funds** for new graduate stipends and **2 new GTA fee waivers each year for three years** to establish this pool of GTA lines. The Humanities departments are generating a management plan for allocating these GTA lines to specific departments on a year-by-year basis.

Globalization — Preparing Students to Become Engaged in the Global Society. Several of the College's largest IDPs prepare our graduates to become engaged participants in a diverse, rapidly changing global society. These Programs offer a variety of lower-division courses that expose students to other cultures and societies, connect them to the world outside Tennessee and the U.S., and provide them with perspectives on recent changes in the global economy that will affect them for decades to come.

Three IDPs (Africana Studies; Global Studies; Medieval Studies) offer lower-division courses that both function as core courses in the respective Program and give students outside the IDPs an opportunity to increase their global awareness. Enrollments in these courses are typically at or over full capacity. To fulfill its mission of preparing students for life in a complex global society, the College must create additional instructional capacity in these courses or in new courses that draw on the expertise of faculty from IDPs with fewer majors. In connection with our new A&S Strategic Plan, we will be assessing our current IDPs in order to optimize instructional capacity and explore new multidisciplinary

areas that are relevant to our students. We anticipate that this exercise will conclude that our current IDPs are structurally under-funded. We will report the results of this analysis once it is completed.

4. Timely Requests for One-Time Funding

Form 4 also contains three relatively modest requests for one-time funding to serve different strategic goals, namely greater access for students to Spanish courses, academic programming relevant to the 2008 national election, and new programming for the Ready for the World initiative. Rationales for these requests are given on Form 4a following Form 4.

5. Arts and Sciences Outreach and Engagement (Outreach, Economic Development, Research)

Outreach in the College reflects the richness and diversity of our academic programs and has long been an important part of our mission. Our faculty and students engage the community through a wide variety of activities that enable citizens to become valued collaborators in the advancement of knowledge. In FY06-07, the College recorded **562,843** citizen contacts. These include faculty delivering workshops to teachers, speaking to public and school audiences, as well as offering the many cultural events through art exhibits, and musical and theatrical performances. The nearly 400 students enrolled in the College's service learning program provided 2656 hours of service to the community in schools and non-profit agencies where they provided needed service, developed a sense of civic responsibility, experienced cultural and economic diversity, and consolidated their academic learning in a real-world setting.

We will continue the outreach activities that have been the hallmark of our College engagement efforts. In addition, we are planning new initiatives because of the recent national focus on STEM education issues. In 2005, the National Academies released the report "Rising Above the Gathering Storm," which detailed the crisis in STEM education as a workforce and competitiveness issue. This report was the impetus for STEM initiatives to become both a national and a state priority. We are responding to this challenge through a broad scope of programs. The Dean and Director of Outreach co-chair a committee of department heads to encourage and coordinate STEM activities across departments. In addition to encouraging K-16 student interest in studies and careers in STEM disciplines, these initiatives have been a central and requisite component of federally funded grants and contracts submitted by faculty as federal funding is increasingly driven by workforce and economic issues. The College's track record and strength in STEM initiatives has leveraged proposal funding (as evidenced by panel reviews of proposals) subsequently supporting both faculty research and the funding of graduate students.

Specific recent STEM initiatives from our College include: (1) hosting the Tennessee Science Olympiad State Tournament, which brings between 700-900 middle and high school students to campus each spring; (2) hosting about 100 students annually at the Tennessee Junior Science and Humanities Symposium, a national program that promotes research for high school students in the STEM areas and affords them a public forum for presenting their research; (3) sponsoring the Pre-Collegiate Research Scholars Program, which enables selected local AP students in STEM disciplines to engage in research mentored by scientists in the College; (4) sponsoring the Governor's School for Science and Engineering which enrolls 80-100 annually; (5) enriching science at 10 middle schools in East Tennessee through an NSF GK-12 grant, which funds the research and stipends of 10 graduate students in earth science; (6) extending *Biology in a Box*, an inquiry-based, hands-on, and innovative approach to teaching life sciences curriculum at all grade levels; and (7) sponsoring the annual Tennessee Pro2Serv Math Contest, which engages 800-1000 high school students statewide. In addition, the College is a collaborating partner with the Math and Science Regional Center (serving 60 students annually) which aims to increase student access and student success for first generation and economically disadvantaged students interested in STEM disciplines, and with the Tennessee Louis Stokes Alliance for Minority Participation (serving approximately 250 annually), which aims to increase enrollment and graduation rates of underrepresented minorities in STEM disciplines.