

# **“The Careful Beginning of a Big Idea”**

## **The George Washington University**

### **Executive Summary**

The remarkable range of intellectual and cultural institutions in the nation’s capital makes Washington, D.C. an exceptional setting for the work of a university. As the next step in the enhancement of its general education design, The George Washington University’s Columbian College of Arts and Sciences seeks to exploit the city’s resources to introduce students to liberal learning in ways they will find engaging and challenging, not merely required. To do this, basic general education courses will be developed using teaching strategies that involve students as active learners, giving them opportunities to work directly with the resources of the nation’s capital.

The process that will be used in the project is as potentially important for the university as the courses that will be developed. A group of senior faculty from a range of departments in the Columbian College who are selected as Hewlett Fellows will meet together over the length of the project with a four-part agenda:

- to investigate appropriate Washington resources in greater depth
- to acquaint themselves with a variety of techniques for promoting active learning
- to develop meaningful ways to assess the effectiveness of the new courses
- to consider expansion of the project as a new approach to general education at GW

With the assistance of specialists at GW and elsewhere, these faculty will develop, offer, and assess 15 new courses over a two-year period. This core group of faculty will then be in a position to help lead this approach in their own departments and across the campus. If the project is successful, the ultimate result may include the creation of general education concentrations or sequences of Washington-based courses that form an integrated program of general education study. Particularly in view of this possibility, the body of data that will be assembled over the course of this project on how well students learn--as well as on relevant student and faculty attitudes -- will be one of the most important outcomes.

We expect that for students, the project will produce significant intellectual excitement in required general education settings, and mitigate against the impression that such courses are not challenging. We expect that students in the target classes will satisfy specific faculty goals for general education at a high level, while gaining meaningful experience with the public resources of the nation’s capital.

### **Rationale**

Leading faculty as well as administrators at GW have shared the national concern of the Boyer Commission and the Hewlett Foundation that the academic experience of lower-division undergraduates is less effective than it might be, and that the full range of resources available to a major university have not been brought to bear to serve these students. At GW, concern for the former has been expressed in active revision of the plan for general education reflected in the university’s General Curriculum Requirements. And for an institution that occupies 43 acres between the Kennedy Center and the White House, the available resources include an enormous network of institutions that are nationally and internationally significant not only in politics and the arts, but also in media, the natural sciences, and across broad areas of social policy.

Concern for the quality of undergraduate experience and for the University’s location are both important factors in GW’s mission statement, which commits the University to providing a stimulating intellectual environment for diverse students and faculty, to excellence in teaching, and to the creation of outstanding learning

experiences for all students, including undergraduates. Each of the four paragraphs of the GW mission statement refers to the university's Washington, D.C. base, the most specific asserting that *"The George Washington University draws upon the rich array of resources from the National Capital Area to enhance its educational endeavors."*

Yet there is a widespread sense that the opportunities Washington presents are underutilized in undergraduate settings, and (as described further below) that the city is in some ways becoming a competitor for students' intellectual attention. While it would be misguided not to make use of the many research ties that faculty have forged with local institutions to address this problem, it would be equally wrong not to take advantage of the specific interests of undergraduate students, many of whom come to GW because of their concern for service, social activism, and politics. If any institution has the opportunity to develop general education in a way that helps undergraduates build civic habits of mind, it should be GW.

The project is especially timely for GW now because during the past year the university made commitments through its 2000-2010 Campus Plan to expand both its undergraduate emphasis and enrollment. In addition, the first of the new educational goals developed through the office of the Vice President for Academic Affairs speaks to the creation of a challenging undergraduate experience of the highest caliber. At the level of the Columbian College of Arts and Sciences, which has the responsibility for providing general education courses for all undergraduates, the process of revising the General Curriculum Requirements has made the definition of general education a central concern of the Dean and senior faculty. That definition identifies the creation of a spirit of inquiry as the fundamental purpose of general education at GW, and the desire to encourage inquiry is reflected in the opportunity for new approaches to teaching and learning that the curriculum now makes possible. The Dean and the senior faculty of the College who have been actively involved in planning this project see it as the ideal vehicle for linking the experience of entering students of the College to the unique strengths of the University.

In addition to providing welcome resources, the occasion of support from the William and Flora Hewlett Foundation will give special impetus to creating new opportunities for entering students. Planning and preparing the proposal has already attracted some of the most distinguished faculty of the Columbian College, and others will join this group and gain the stature of Hewlett Fellows. Similarly, the effort will have a special call on central University resources such as the Center for Excellence in Teaching and Learning and the Office of Academic Planning and Assessment, whose anticipated support is committed in the budget. As the University's first grant from the prestigious California foundation, the project will inevitably be conducted with heightened visibility for both thoroughness of process and to the specific outcomes. This attention will be especially important in guaranteeing careful assessment and analysis, which given the potential for later creation of general education concentrations, will be of special importance to the Columbian College of Arts and Sciences. It was the Dean of the College, who in discussing the project with a faculty group, first characterized it as "the careful beginning of a big idea."

## **Background**

Chartered by Congress in 1821, the creation of The George Washington University fulfilled the wish expressed by the country's first president that the nation's capital should include a university where "Youth from all parts of the United States" could study the liberal arts and "the principles of Politics and Good Government." In the 20th century, many of the distinctive features GW developed were shaped by the federal presence: the law school's prominence in the field of intellectual property grows out of ties with the U.S. Patent Office; the business school has a strong program in public management; the engineering school is a federal partner in aviation and highway safety research; and the medical school is involved in the surge of genomic and biotechnology research that has grown up locally around the National Institutes of Health.

However, as the University's graduate reputation expanded and the number of undergraduates students across the country willing to travel greater distances from their homes to attend college increased, GW attracted a substantial undergraduate student body that is distinguished in its own right. As a group, undergraduate students at GW are diverse (representing 49 states, 92 foreign countries, and including 20% minority students) and more interested in public questions than their peers. Of particular relevance for the project outlined here, they are also arriving with increasingly strong academic preparation.

Partly in response to a successful admissions program that features the advantages of GW's Washington location, both the number and quality of the undergraduates GW attracts have increased sharply over the last decade. In 1990, the freshman class included 1,161 students, who had an average SAT score of 1130. This year, the freshman class included 2,099 students, with an SAT-I average of 1234. While the 1996 re-centering of the SAT factors into these numbers, the increased caliber of the students is clear: 45% of this year's freshmen graduated in the top 10% of their high school class, which was true of only 32% of the freshmen in 1990. These increases reflect GW's decision to expand its undergraduate emphasis and enrollment, while simultaneously increasing its academic caliber.

GW has undertaken a number of initiatives to strengthen its undergraduate academic program. In the early part of the decade, for example, an interdisciplinary humanities program was developed with the support of the NEH that continues to be important on campus. (The faculty seminar design that was part of that project is a model for the Hewlett Fellows meetings proposed here.) Support for instruction was expanded through a continuing program of deploying new, more sophisticated instructional technology across the campus, including the installation of electronic student response systems in selected classrooms to support a higher level of interactivity in large classes.

Providing faculty with additional opportunities to enhance their skills in teaching undergraduates has also been an important focus of faculty development programs. The University's Center for Excellence in Learning and Teaching, co-directed by members of the faculty and academic administration, presents a variety of teaching enrichment programs each year ranging from University-wide symposia to brown bag lunches, and some of their best-attended sessions have focused on undergraduate teaching. The Instructional Technology Laboratory was established in 1997 to provide faculty with training and support in the use of established and innovative pedagogical approaches, along with the use of instructional technology, and it has been heavily used.

The most visible of GW's recent efforts on behalf of undergraduates was the 1998 start of new programs at the Mount Vernon College campus, the site of a former small women's college located in a residential section of Northwest Washington. When Mount Vernon College reached a point at which it could not sustain itself financially, the College satisfied previous financial commitments by turning over responsibility for the 26-acre campus to GW. Linked to GW's Foggy Bottom campus by continuous shuttle busses, the Mount Vernon site has been developed to house a residential program for lower division women students, to provide a liberal arts environment for students attracted to that setting but also interested in the range of opportunities that GW can offer.

The first programmatic initiative on the Mount Vernon campus was the creation of a selective, interdisciplinary, residential living and learning program for first year women, with a focus on women's leadership issues. The program includes a one-credit symposium led by the faculty program coordinator that includes lectures, workshops, and field experiences drawing heavily from the resources of the Washington area, to bring the students together with women of achievement and leadership. 203 students were in residence on the Mount Vernon campus this fall. Housing on the campus is being expanded, and will ultimately accommodate 440 undergraduate students.

In addition to its unique women's leadership program, GW sees the Mount Vernon campus as an ideal site for the development of new pedagogy at the undergraduate level, which can be tested and shared with the wider faculty and GW student body. Recent recommendations recognize the potential of the campus for maintaining an emphasis on small classes, quality teaching, challenging classroom experiences, and innovative course design. For example, renovation of the science laboratories in biology, geology, and eventually chemistry is being undertaken to provide laboratories for piloting smaller sections of more student-centered undergraduate instruction in the sciences.

However, even while these efforts have been underway, faculty and administrators have been hearing from some of GW's most academically successful freshman and sophomore students that they are not finding this course work adequately challenging. Studies by the University's Office of Academic Planning and Assessment identified the fact that some of GW's strongest students were the most likely to leave. That is, by 1996-1997, 48% of the students who left GW after their first year had a grade point average of 3.0 or better. The Director of Academic Planning and Assessment interviewed 50 students who have left or planned to leave before graduation and confirmed that a number were leaving to seek a more rigorous academic environment elsewhere. A number of students reported that they were bored in their introductory courses; those who took AP and honors courses before entering GW indicated that they had already encountered much of the material before enrolling as freshmen. While concerted efforts appear to be correcting this loss of academically strong students--only 29% of freshmen who left GW in 1999 had grade point averages above 3.0--students continue to express a need for greater academic challenges. While 64% of all freshmen surveyed at the end of their first semester in 1999 found their academic experience satisfying, only 54% reported that they found it challenging.

This is a result GW is eager to change. At the urging of the Vice President for Academic Affairs, schools within GW that enroll undergraduates responded in a number of ways. The School of Business and Public Management, for example, expanded its honors program and created advanced introductory sections of accounting. The School of Engineering redesigned its introductory course so that it became project-based. The Elliott School of International Affairs created a second semester residential course.

The Dean of the Colleges of Arts and Sciences, with responsibility for providing general education courses for all students entering GW, launched the most concerted effort to offer undergraduates a richer and more challenging experience. Among other projects, he made modest funding for course materials and development expenses for new courses available, and as a result several courses have been created that increase the academic demands being made of entering students.

One of the most successful of these, the new response-based introductory physics course for non-majors, which typically enrolls 100 students per section, has shown exceptional results. Designed around the peer instruction method pioneered by Eric Mazur, students spend a large part of class time answering conceptual questions, both individually and after small group discussions, which probe their understanding of fundamental physics concepts. The class is polled by an electronic response system and feedback (both to the students and to the instructor) is immediate. This instantaneous assessment allows for a class format that continuously adapts to the comprehension level of the students. These students receive additional support, including a web-based computerized homework delivery and grading system which generates individualized assignments for each student. Clearly, active student participation in the learning process is essential to the pedagogical goals of the course. The success of this approach is nowhere more evident than in the fact that the number of students returning to enroll in the second semester has increased by more than half, even though the difficulty of the examination questions being asked has substantially increased. As Jerry Feldman, who teaches the course, has said, “We’ve raised the bar, and they’re jumping over it.”

The Dean of the Columbian College also initiated a program of topical freshman seminars, designed to provide an exciting and challenging experience for entering freshman in the small, informal format otherwise only available to Honors students. Begun in the fall of 1999, this series has included a number of very interesting freshmen courses offered by senior faculty in their own areas of interest, including *Monsters and Medieval Identity*; *The Psychology of Leadership*; *Politics and Religion*; and *Material Culture in America, or How to Read an Artifact*. These courses have been very rewarding for both students and faculty, and one in particular—*Washington and the American City in Word and Image*—is a model for the current project. The course focuses on fiction, film, and art work depicting life in Washington, New York, and San Francisco over the last two centuries, with particular attention to questions of ethnicity, assimilation, gender, and power. Students in the course have, for example, visited an exhibition at the National Building Museum on the early development of the District of Columbia in connection with reading Henry Adams’ *Democracy*. The course is well received, and Dr. Christopher Sten, who teaches it, feels the Washington tie is most successful with students.

At the same time that these various efforts were underway, faculty and students were becoming increasingly confused and unhappy with the general education requirements (called General Curriculum Requirements) of the Columbian College of Arts and Sciences. Adopted in response to a loose set of expectations that had dominated in the 1970’s, the curriculum focused on the delivery of specific content, and identified a small number of courses in which students could enroll to fulfill requirements in broad categories. (As one faculty member has said, the curriculum perhaps tried to be more conservative than it could be.) The rationale for what was included in some of these sets of courses was not clear. And the scheme was especially restrictive because certain courses were adamantly, and not always logically, linked to others. Students who satisfied the requirement for competency in Western Society and Civilization by enrolling in Introduction to World Religions 1 (Western religions), for example, were also required to enroll in Introduction to World Religions 2 (Eastern religions).

The problems this approach caused for students were multiple. Adequate numbers of sections of the few required courses were simply not always available. In some cases, students were required to take courses at an introductory level, even if they were qualified to enroll in a higher level course. As students entered with stronger and stronger high school preparation and academic ambitions, their opportunities to explore new fields—particularly as more were seeking interdisciplinary majors or minors outside their own department--were too limited. Petitions for exceptions to the requirements became an avalanche.

At the urging of the Dean of the Columbian College of Arts and Sciences, and after several years of consideration, the faculty of the College adopted revised General Curriculum Requirements that took effect in January, 2000. In addition to solving the practical problems caused by the existing requirements, the new scheme was specifically set out to provide simplicity and clarity of purpose about the intent and practice of general education at GW, for both faculty and students. Rather than specific content and courses, the new requirements emphasize exploration. The College now identifies the purpose of liberal education as promoting a spirit of inquiry. The new plan seeks to provide students with breadth and diversity by encouraging them to take courses across the curriculum. Seven broad areas of study are identified, along with a rationale for the inclusion of each and a statement of the educational goals to be achieved by students in that area. Students may take upper-level, even graduate courses, that allow them a richer experience, contact with a wider range of talented faculty, and a more individual and eclectic program, while still ensuring cultural literacy and intellectual rigor. (An outline of the revised General Curriculum Requirements of the College of Arts and Sciences is included here as Attachment A.)

The newness of this scheme and the wide flexibility it allows has had a tremendously energizing effect on the faculty, and the eager participation of leading faculty in the project proposed here reflects that excitement. The new approach is not without problems, however. While students may now satisfy the requirements by enrolling in a wide range of upper division courses, for example, in many cases that is not a real option for entering students because prerequisites for many upper division courses continue. Faculty who have taught courses as a two-semester sequence are faced with difficult choices, given students' new freedom to explore a subject by enrolling for only one semester. (This is a special concern in the sciences.) And with no single course (other than English composition) specifically required, departments are rethinking the attractiveness of their courses to entering students, many of whom are potential majors.

## **The Proposed Project**

As indicated above, like many research universities, The George Washington University believes there is room for improvement in the experience of lower divisions students and is interested in changes that will produce that result. Classes offered by the Columbian College of Arts and Sciences are often large and lecture-based, with little opportunity for interaction between students and faculty. Students are apt to see the general education requirements as an obstacle course they have to surmount. Far more often than we would wish, students see the courses they take as part of their general education as something they have to "get out of the way." While full-time faculty remain relatively involved in teaching entering students-- 47% teaching introductory courses--many are aware that research and other expectations of their time have prevented them from devoting the thought to new pedagogies that have been shown to produce exceptional student engagement on small liberal arts campuses. Along with the increasing academic preparations of GW's student body described above, these factors together contribute to the lack of exciting, challenging course work that has been reported by some lower division students.

Compounding this, the University's Washington location creates both heightened expectations and intellectual competition (to say nothing of its social and entertainment distractions) for students. 85% to 90% of entering freshmen each year report that the Washington location is an important or very important reason for their choosing to enroll at GW, and there is strong evidence that their choice reflects distinctive ambitions and professional goals. Sax et al. (2000) reported in *The American Freshmen: 1999* that the commitment to influence social values, to participate in community action programs, and to be a community leader fell to its lowest point since the mid-1980's. As the following comparison reflects, for GW students, the opposite is true.

	<b>GW 1989</b>	<b>GW 1999</b>	<b>National average for students attending private universities (1999)</b>
Participating in a community action program is very important	30%	43%	23.5%
Influencing social values is important	40%	54%	30%
Keeping up to date with political affairs is important	47%	63%	32%

Admirable as these interests are, they can tend to pull students' attention away from traditional course work. The number of GW students working off-campus, for example, is increasing, one factor being their active pursuit of internships and other resume-building experiences.

The challenges this situation presents to GW are both large and systemic, extending at least to the 400 full-time faculty of the Columbian College of Arts and Sciences, the 800 sections of courses offered each semester by the College and the 4,500 students enrolled. There is no single initiative which can address the challenge completely. But the Dean of the College and a group of faculty leaders see the project described here as a way to extend the efforts they have begun to the next logical level, particularly in the successful program of topical freshman seminars. That is, working together, they will develop a set of 15 courses designed specifically to engage entering students in active inquiry, using the special resources available in the nation's capital. The focus on teaching strategies that engage students, the deliberate attempt develop courses in each of the major areas of general education required of students, and perhaps as important, the opportunity for faculty to work together to develop a shared familiarity with both instructional techniques and new local resources represent a literal flowering of the freshman seminar program. Enthusiasm for the project is also high because the project has the potential to lay the groundwork for linking Washington-based courses in a way that can give coherence as well as rigor and excitement to a student's general education. The Dean has even suggested these general education courses might some day be organized under a rubric such as "Washington: Policy, Politics, and Prose." We have been particularly encouraged in this prospect by the example of the "front loaded interdisciplinary minor established by the Global Change Project at the University of Michigan with Hewlett Foundation support. The degree of early student interest and clarity of focus the director of that program reports makes such an approach a very appealing long-range goal for GW.

We are not using a single definition of what inquiry-based teaching and learning means at The George Washington University. The purpose of the faculty seminar meetings described below will be to investigate just that question. We know that it is more than traditional in-class discussion, no matter how good, just as significant student use of Washington resources is more than a field trip to a museum. We are interested in any form of

pedagogy that leads to the lively engagement of students with the instructor, other students, and primary source material, whether under the heading of inquiry-guided, response-based, problem-based, collaborative learning, or others. An outline faculty have discussed of what inquiry-based learning can mean in the sciences is enclosed as Attachment B.

We have also been encouraged by the faculty excitement and creativity shown in the project supported by the Hewlett Foundation at Case Western Reserve University, where faculty developed links with University Center institutions not only in the arts but also in fields such as sociology and religion. The excitement with which GW faculty approach the project is reflected in a number of ways, from gracious offers of help on the part of those who have experience with prior projects to an outpouring of creative suggestions--both diverse and enticing--for the subjects these new courses might approach. Some of these suggestions illustrate how the uniqueness of Washington can make for a very fresh approach to a subject, for example, exploring Western religions by investigating how their advocacy positions on public issues grow out of their theological and sociological histories. Others illustrate the potential for taking advantage of the political interest of students that brings them here, to introduce them to less familiar territory--for example, the Mathematics of Social Choice or political intrigue in operatic libretti. The actual classes to be developed during the course of the project will be chosen as faculty are selected to participate as Hewlett Fellows, in the process described below. By way of illustrating the possibilities that faculty foresee, however, brief descriptions of each of the following courses are included as Appendix D.

- ! Cathedral Cities: Canterbury, York, and Washington
- ! The Narrative of Exhibition
- ! Spanish in Community
- ! Lawmaking in Congress
- ! Introduction to Western Religions
- ! Opera: From Politics to Production
- ! The Federal Theatre Project - Failure or Triumph?
- ! The Mathematics of Social Change
- ! Biology: One Cell and Many
- ! Introduction to Genomics
- ! The Land Before the City - The Geology of the Washington, D.C. Area
- ! Energy and the Environment

Of the resources GW has available to ensure the success of this project, none is more important than the enthusiastic leadership of Lester Lefton, Dean of the Columbian College of Arts and Sciences. Himself a cognitive psychologist who has specialized in the scholarship of teaching, he is the author of a widely-used introductory psychology text which he is currently revising (for its eighth edition) so that the structure of the text itself reflects the principles of learning theory. Dean Lefton has provided both excitement and encouragement for faculty to participate in the current project. He specially requested that Michael Moses, the Acting Associate Dean, serve as Co-Chair, and has agreed that the courses developed and taught by Hewlett Fellows will be limited to 22 students each. He has also addressed the difficult underlying question of faculty incentives through his willingness to work with Department Chairs to make participation in the project an item of special note and importance in faculty promotion and salary reviews. His several commitments to sustaining the effort after the end of the grant period, assuming that it proves to be effective, are discussed below in the section on Continuation.

Because a careful analysis of the results of the project is so important, the University's Director of Academic Planning and Assessment Dr. Cheryl Beil, will serve as the Co-Chair of the Hewlett Task Force, and as administrative Project Director. Dr. Beil and her staff have established a long history of assessing the undergraduate experience at GW. Initially concerned about the retention of its undergraduates in the early 1980's, GW developed a research and assessment plan that has been in place since 1984. Freshmen are surveyed prior to their first semester at GW and asked about their high school experiences, their expectations for academic and social success, and an estimate of their writing and oral communication skills, mathematical ability, and study and test-taking skills. A second survey is distributed at the end of the first semester. Questions are included about the rigor of the academic experience, students' assessment of their writing and oral communication skills, mathematical ability, and study and test-taking skills. An additional (and more extensive) assessment is undertaken with seniors and alumni five years after graduation. The years of collecting and analyzing data about undergraduate education are a reflection of the University's commitment to outcomes assessment at the macro-level. The logical next step is to incorporate assessment activities into individual courses, to better understand what and how well students learn.

The recent revision of the general education curriculum requirements, with its clearly stated goals and objectives, provides the ideal circumstance to incorporate assessment into teaching and learning. As faculty develop new courses and incorporate new approaches to teaching general education, they need feedback on how well students are mastering the skills, knowledge, and habits of inquiry that general education is intended to provide.

Although course-specific assessment is in its formative years at GW, a large number of Columbian College faculty have been introduced to and used some classroom assessment techniques and have been involved in the assessment of learning outcomes, through participation in the Freshman Advising Workshop. This is a required, five-session program for entering freshmen developed in 1991 to introduce students to the resources of the University and the city, build community, strengthen study skills, address issues of academic integrity, and explore possible majors. The program was developed with clear goals and learning objectives, and as part of the approval process, faculty stipulated that achievement of the goals of the program be measured yearly, that the assessment include information collected from both students and from teaching teams, and that specific outcomes be measured.

Faculty preparing to teach the Workshop attended a two-day program focusing on ways to achieve the program's objectives. Discussions on how to increase student engagement were included, as were examples of experiential learning activities, suggestions for developing a syllabus, team building exercises, information about classroom assessment techniques, and suggestions for field trips and possible resources to include on the syllabus. More than 100 members of the Columbian College faculty have taught the course since 1991.

Short and long-term assessment of the Freshman Advising Workshop includes input from both students and teaching teams, and from students at the time of graduation. The impact of the course on first to second year retention has been explored as well, and is positive.

## **Method and Timetable**

The heart of any attempt to enhance the academic experience of students is the faculty, so faculty interaction and development are the primary means we propose for reaching the goals of this project. Faculty who are selected as Hewlett Fellows will be joined by a Steering Committee of those who bring special expertise, including the Acting Associate Dean of the Columbian College, four department chairs, the faculty member who led the revision of the General Curriculum Requirements while chairing the Curriculum Committee, two faculty who participated in the seminar-based NEH project to create the Humanities program, several faculty with experience teaching Freshman Seminars, both faculty who teach the response-based introductory physics course, and Dr. Terry Hufford, who in the fall of 2001 will take a new position as a master teacher and resource faculty member on the Mount Vernon campus. (Brief biographical sketches of the Steering Committee members are included as Appendix C, and descriptions of the roles of additional administrative members are included in the description of the Committee's role in the Governance section, below.) These Steering Committee members and the Hewlett Fellows will work together in a series of meetings and special retreats before, during, and after the Fellows develop and offer the new courses. Together they will bring some of the very best talent available at GW to the project.

The purpose of this working group, to be called the Hewlett Task Force, is to bring faculty together from across departments and provide the resources necessary to significantly enhance general education offerings. As they work together throughout the grant period, faculty will be encouraged to develop a common language and framework for understanding and sharing ideas about teaching. Site visits and special speakers from the Washington area will give Fellows information and ideas for courses, and lay the groundwork for continued working relationships with these institutions. We expect that smaller working groups may also meet together, as Fellows get to the point of rolling up their sleeves and using a new computer system or developing lab exercises, for example. Frequent interaction and collaboration among faculty throughout the grant period will create a core group committed to improving undergraduate teaching and the general education curriculum. A Hewlett Listserv and web-site to facilitate communication among the task force and to share information with the larger community will be developed. At the conclusion of the grant, these faculty will assist their departments and schools in the examination and revision of general education courses. Assuming that the project is successful, they will become a resource for a second group of fellows and for faculty across the university.

The specific goals for the activities of the Hewlett Task Force as a group are:

- X Build a faculty community across disciplines that offers peer support and collaboration, is committed to the importance of the general education of other students, and that will continue to effect change beyond the grant period
- X Develop a common understanding and terminology to discuss teaching and student learning
- X Explore pedagogies, and instructional technology that encourage active student learning
- X Provide opportunities for faculty to experiment in a positive and supportive environment
- X Explore student learning assessment models that provide direct feedback to faculty to increase their understanding of how students learn
- X Where possible, develop joint projects that link students from courses in different disciplines
- X Conduct a University-wide forum to present the results of the project and enlist a new group of faculty participants
- X Consider curriculum changes beyond the grant period, including concentrations of general curriculum courses grouped thematically as an interdisciplinary sequence or undergraduate concentration focused on the city of Washington

The 15 Fellows and varying members of the Steering Committee (depending on the topic) will meet monthly through the two academic years of the grant period. The initial workshop and concluding session will be held on the Mount Vernon campus, which the University sees as its teaching laboratory. At least two retreats will be conducted at Washington institutions that may be of interest so that part of the program can include presentations by the director and educational staff of the institution, as appropriate. Sites for these visits will be selected by the Fellows chosen, but Dumbarton Oaks and the National Zoo have both been suggested as possibilities.

Since to a faculty member few things are as vivid as seeing students' responses, Fellows will also have opportunities to visit classes on campus using the computerized student response system, using discovery techniques in introductory biology labs, and participating in a problem-based course in the Medical School. The subjects of Fellows' meetings will include new approaches to student engagement, assessment of learning gains, the uses of new instructional technologies, and specialized resources available in the Washington area. Specific topics and speakers will be selected by Fellows at their initial retreat, with the assistance of the Associate Dean and the Director of Women's Leadership Programs at the Mount Vernon campus, who will coordinate the meetings. We anticipate that external speakers might include Barbara Walvoord, Director of the Kaneb Center for Teaching and Learning and Professor of English at Notre Dame, Martha Stasson, Director of Academic Planning and Assessment at the University of Massachusetts at Amherst, Dr. Harold Horowitz, creator of the Respondex system and former Program Director for Educational Technology at IBM.

In order to conduct an initial workshop during the summer of 2001, Hewlett Fellows will be selected before the grant period formally begins. The Dean of the College will invite all tenured and long-contract faculty to apply. Faculty applicants will be asked to indicate their interest in inquiry-based pedagogies and assessment and to suggest the course they would seek to develop and its Washington ties. Fellows will be chosen by a subcommittee of the Steering Committee, under the leadership of the Acting Associate Dean. Current Steering Committee members will be eligible to apply (and a number have indicated their desire to do so.)

The specific courses that will be developed by Hewlett Fellows will be three-hour courses open to entering students. The courses must be acceptable to the cognizant department in fulfillment of one of the General Curriculum Requirements of the Columbian College of Arts and Sciences. The one exception to this practice is in the sciences, where the development of meaningful hands-on, discovery-based laboratory experiences for non-major students are expected to require increasing the credit hour value of these classes from the current three to four credit hours. Both to serve the goals for breadth of the General Curriculum Requirements themselves and to provide a base of information on the question of an eventual Washington concentration, the Steering Committee will attempt to select at least one Fellow in each of the General Curriculum areas of inquiry. To ensure that the goal of active student engagement can be met, enrollment in each Fellow's target course will be limited to 22 students. (The Steering Committee will consider an exception to this limit if a persuasive case is made, perhaps using the available student response technology.)

The incorporation of significant experience with Washington resources will tend to stretch these courses beyond the boundaries we often associate with individual disciplines. While the courses will not necessarily be otherwise interdisciplinary in design, Fellows will be urged to take the opportunity of working together to find cross-disciplinary links that will allow students to see how a single topic is approached from different avenues of inquiry. What questions does an art historian ask about the Capital building, the National Gallery of Art, or Dumbarton Oaks, for example? How do these compare with the questions asked by a political scientist? In some cases, it may be possible to involve students from separate courses in a common problem or experience.

This is an outline of the sequence of events we envision:

**Summer 2001:** The grant period will begin with a two-day retreat and a keynote speaker on the importance of general education and innovative pedagogy. The retreat will include opportunities for informal interaction, so faculty can share their expectations of the program and their courses. A set of readings prepared by the Retreat Coordinator will be distributed. Faculty will discuss the design and more specific content of the seminar meetings and retreats for the year, and will be encouraged to form smaller working groups, as appropriate.

**Fall 2001:** In addition to speakers from Washington area institutions, faculty seminar meetings will explore the literature related to inquiry-based learning, examine best practices and new instructional technologies, and hear from others both outside and within the university who have been working with these strategies and ideas. Fellows will have a series of opportunities to visit classes using new approaches to teaching on campus. The first day-long retreat at an off-campus Washington site will be conducted to meet with the director and education staff to learn more about the institutions's resources and programs.

For the benefit of the Fellows, and also to raise awareness of their efforts, during the fall of 2001, the Center for Excellence in Learning and Teaching will include a speaker on designing courses for active learning, as part of its campus-wide series.

**Spring 2002:** The focus of faculty discussions during the spring of 2002 will be on approaches to evaluating student learning, on the use of instructional technology, and on identifying additional specialized Washington resources. A day-long retreat at a Washington institution will be held early in the term. A speaker on assessing inquiry-based instruction and monthly seminar discussions will provide opportunities for exchanging ideas on evaluation strategies. The Center for Academic Technology will provide a special session for Fellows on instructional course design, graphic and visual standards, platform techniques, and other ways to use technology to enhance their courses. As they begin course development, Fellows will be encouraged to identify opportunities for cross-disciplinary links between their courses and the others being developed.

Given the expectation that additional time will be required to create laboratory experiences to expand non-major sciences to a four-hour model, as many as three Fellows will be released from teaching one course in the spring semester, to begin course development. Each will have the help of a graduate assistant for the semester.

**Summer 2002:** Hewlett Fellows will devote their time to course development, including the creation of syllabi, identification of readings, projects, fieldwork plans, student research, technology support, and assessment plans. Fellows will be encouraged to meet periodically in workgroups, and will have individual support available through the Center for Academic Technology Support and from the Office of Academic Planning and Assessment. Near the end of the summer, Fellows will meet with the Director and Assistant Director to coordinate schedules for the administration of student survey questionnaires.

**Fall 2002:** All of the new courses developed by Hewlett Fellows will be offered. Fellows will meet in work groups to compare notes, but regular Task Force meetings will be scaled back to concentrate on teaching. A mid-semester retreat of the Hewlett Task Force will focus on group discussion of progress and provide an opportunity to consider the need for any mid-course correction. Throughout the term, faculty will work with the Assistant Director of the Office of Academic Planning and Assessment, who will support the evaluation of students progress, and the administration of student questionnaires.

**Spring 2003:** Seminar discussions during the spring term will focus on evaluating the assessment results and formulating recommendations for the next phase of the project. These will include questions of whether the process should be continued to develop additional courses, and with what modification, as well as the advisability of

undertaking creation of a Washington-based general education concentration. It will also include considerations of ways to further strengthen institutional resources to improve the active engagement of students, and how the Fellows can continue to serve as resources of other faculty and departments.

Each Fellow will make a presentation of results to his or her home department, and the Task Force as a group will present the results of the project in a forum for the university as a whole.

## **Project Outcomes and Evaluation**

This is a project which will involve a diverse group of faculty, new groups of entering students, and whose institutional impact could be quite broad. For the sake of both clarity of direction and meaningful evaluation, we have identified the most important outcomes we anticipate for faculty, for students, and for the institution, as listed below. Sample indicators that reflect our initial ideas for assessing the attainment of these outcomes, to know if we achieved what we set out to do, are also listed for each category.

Of the outcomes we hope to achieve, measuring those for students is notoriously the most complex, if perhaps also the most important. In a valuable sense, the exercise of the project will give us practice in figuring out solutions to new problems of assessment that follow the development of new teaching approaches. It will also help us address the broader questions of whether we are successfully meeting the goals set for general education at GW. As the enclosed outline of the Columbian College General Curriculum Requirements (Appendix A) reflects, it is difficult to determine the extent to which a student's experience in a course satisfies the goal for the particular area of inquiry to which the course pertains. It is equally difficult to then gain a sense that the experience contributes, as the areas of inquiry together are intended, to "an acceptable level of cultural literacy and diversity of liberal learning." It is, however, a task that we believe the Office of Academic Planning and Assessment and faculty together can and should address.

We have learned from the experience of those involved in the University of Massachusetts program how valuable it can be to offer faculty hands-on assistance in setting up, administering, and analyzing assessment data, and one of the few regrets of those initiated GW's Freshman Seminars is that no special attention was committed to evaluating that project from its beginning. The Office of Academic Planning and Assessment in collaboration with other relevant offices at GW is well-placed to work with faculty and to coordinate multi-dimensional evaluations of the project. As the examples described below illustrate, the Office will use a variety of assessment methods and evaluation tools, as appropriate to the three constituencies identified.

## **Faculty Outcomes**

1. A faculty community crossing disciplines that offers peer support and collaboration, and is experienced in the design, implementation, and assessment of instructional strategies that encourage active student learning.
1. Faculty knowledge about how the unique resources in the nation's capital may be used to promote active learning environments in general education courses.

### **Sample Indicators**

- The Office of Academic Planning and Assessment will survey Hewlett Fellows, to establish an inventory of the attitudes and understanding they have of the goals of the general curriculum requirements, inquiry-based teaching and learning, and assessment of learning outcomes, and also of Washington, D.C. resources and sites, both at the beginning and at the end of the project.
- Hewlett Fellows will produce course syllabi containing clearly stated learning objectives that incorporate the goals of the courses and the area of general education inquiry the course is expected to teach; articulate what students are expected to learn; and provide appropriate measures to assess students' achievement of these objectives.

- The Office of Academic Planning and Assessment will design and administer surveys to Hewlett Fellows at the conclusion of the summer workshop and each major retreat, to assess the program's success and provide feedback to help shape the design and content of subsequent meetings.
- The Retreat Coordinator (Dr. Mikhalevsky) will produce a summary of the workshop, retreats, and major meetings that is available to all faculty via the Project's website.

## **Student Outcomes**

1. Intellectual excitement and academic engagement in required general education courses
2. Meaningful academic engagement with the resources of the nation's capital
3. Experience that contributes to the attainment of a high level of cultural literacy, intellectual competence, and appreciation for the breadth and diversity of liberal learning

### **Sample Indicators**

- The Office of Academic Planning and Assessment will work with faculty to develop and administer pre- and post- course measures that gauge and evaluate students' levels of competency in the specific area of the general education curriculum requirements related to the course, as well as student familiarity with relevant Washington, D.C. resources.
- Students successfully complete course requirements and show progress towards or achievement of the general curriculum goal related to the course. For example, students enrolled in a mathematics, logic, or statistics course designed to "enhance their capacity to think logically and critically and to reason symbolically" may be asked to provide, in writing, a clear restatement of a problem, and then a well-reasoned explanation of all the steps leading to the solution of the problem. "Appreciation for social and behavioral science theory and methods of analysis, evidence, and proof" may be demonstrated through group projects that ask students to describe a theory or hypothesis; identify evidence in source material that supports the hypothesis; and describe and critique methods to analyze the evidence and test the hypothesis.
- At the end of each target course, students will reflect in writing on the value and effectiveness of the "Washington connection" in terms of its impact on their own learning and on the achievement of course goals.
- Faculty, in conjunction with the Office of Academic Planning and Assessment, will develop and use appropriate classroom assessment techniques to record and provide ongoing feedback on students' progress in achieving course goals and objectives.
- The Office of Academic Planning and Assessment will develop and administer a survey designed to measure the academic engagement and intellectual interest of students enrolled in target courses.
- Less formal indicators of student engagement and intellectual excitement may include asking students to keep a record of the amount of time they spend studying or preparing for the target course. Faculty may appraise students' level of preparedness for the course, quality of class discussions, and the percentage of students participating in class discussions. The relative speed in which a target course is filled at registration may be another gauge of student interest.

## **Institutional Outcomes**

1. 15 Washington-specific, inquiry-based lower division courses that fulfill general curriculum

requirements.

2. A University-wide forum to present the results of the project and enlist a new group of faculty participants.
3. A body of data on faculty and curriculum development, assessment practices, student intellectual engagement, and use of Washington resources.
4. Faculty and student recommendations to modify, continue, or expand the Washington-based inquiry model to a minor or concentration cluster of general education courses.

### **Sample Indicators**

- The University will develop a Hewlett Project website that includes course descriptions, summaries of workshops, instructional resources and technology, assessment practices, Washington resources, and links to relevant sites.
- Using data collected from all aspects of the Hewlett Project, the Office of Academic Planning and Assessment will assess the impact of small class size, general education revisions, and the Washington connection on student learning and faculty perceptions.
- Faculty will be encouraged to share the results of the Hewlett Project beyond the GW community by writing papers for publication and making presentations at professional conferences.

### **Continuation**

We anticipate that the impetus of this project as a whole--the creation of engaging new academic experiences based on the resources of Washington, D.C.--and the individual courses to be created will both be highly successful. As indicated above, both will be carefully followed and evaluated. Eager to provide such opportunities for students, the Dean of the Columbian College of Arts and Sciences has indicated that he will urge that the most effective of the new courses be offered continuously, twice each academic year, and that any needing additional development be repeated annually as they undergo further revision. To sustain the development of the curriculum and take advantage of the experience of Hewlett Task Force members, based on the successful outcome of the project the Dean intends to continue the process, and recruit a new class of Fellows to undertake similar work. It is not possible to pre-judge the wisdom of moving even further to the development of general education concentrations built around Washington-based courses, but both the enthusiasm on campus for the idea and the positive experience of the Global Change Project at the University of Michigan lead us to hope that the project will be continued in that form.

### **Dissemination**

Since this is a pilot project to test a new approach to general education for the whole University, we want it to be highly visible. We will work with the University Relations office to gain as much exposure on campus as possible, through *By George* (the faculty and staff newspaper), the University web site, and other means. In addition to stories about the initiation of the project, this could include regular reports on the Hewlett Task Force sessions at local venues--designed to evoke an interest in joining the project. Campus-wide events planned as part of the project--particularly the Center for Excellence in Teaching and Learning speaker series and the final forum presented by the Hewlett Task Force--will be widely announced. The project web site will include a schedule of upcoming speakers and links to new materials under development, as well as references that other faculty may find

useful. Particularly with the involvement of the chairs of major departments on the Steering Committee, providing regular reports on the Hewlett Task Force will not be difficult in departmental meetings.

In addition to the listing on the Hewlett Foundation web site, we will also make information about the project available to other universities through presentations at professional meetings. While the resources that the Washington area makes available to GW students are unique, there are six other doctoral universities in the metropolitan area who could well be interested in the results of the approach outlined here. And a significant number of major research universities are located in large cities, where such opportunities as engaging undergraduates with museums, opera companies, National Park Service staff, or local historical societies are many.

## **Web Site Posting**

The George Washington University  
 “The Careful Beginning of a Big Idea”

The remarkable range of intellectual and cultural institutions in the nation’s capital makes Washington, D.C. an exceptional setting for the work of a university. Faculty have developed research ties with a very wide range of specialized Washington institutions, but there is a sense that the exciting intellectual resources the capital offers have not been adequately put to use to serve undergraduate students. As the next step in the enhancement of its general education design, The George Washington University’s Columbian College of Arts and Sciences seeks to exploit the city’s resources to introduce students to liberal learning in ways they will find engaging and challenging, not merely required. To do this, basic general education courses will be developed using teaching strategies that involve students as active learners, giving them opportunities to work directly with the resources of the nation’s capital.

The process that will be used in the project is as potentially important for the university as the courses that will be developed. A group of senior faculty from a range of departments in the Columbian College who are selected as Hewlett Fellows will meet together over the length of the project to investigate appropriate Washington resources in greater depth, acquaint themselves with a variety of techniques for promoting active learning, develop meaningful ways to assess the effectiveness of the new courses, and consider expansion of the project as a new approach to general education at GW. With the assistance of specialists at GW and elsewhere, these faculty will develop, offer, and assess 15 new courses over a two-year period. This core group of faculty will then be in a position to help lead this approach in their own departments and across the campus. If the project is successful, the ultimate result may include the creation of general education concentrations, or sequences of Washington-based courses that form an integrated program of general education study.

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## **Governance and Staff**

As indicated above, the project will operate through a Hewlett Task Force, which will be made up of a Steering Committee composed of both faculty and administrators, as well as the Fellows themselves. The Task Force will be co-chaired by Dr. Michael Moses, Acting Associate Dean of the Columbian College of Arts and Sciences, and Dr. Cheryl Beil, Director of Academic Planning and Assessment. Dr. Beil will serve as Project Director; with the active involvement of the Associate Vice President for Academic Planning and Special Projects, to whom she reports, she will coordinate the substantial administrative effort involved, from organizing the selection process to structuring assessments and reporting. She will have the able assistance of Kathy Doherty, who just recently joined the GW staff, after providing assessment support for the Hewlett-funded project at the University of Massachusetts at Amherst. Dr. Moses will lead Task Force retreats and meetings. He will have the administrative support of Dr. Nina Mikhalevsky, Director of Women's Leadership Programs for The George Washington University at Mount Vernon, who will coordinate meetings, schedule speakers and venues, and also develop written summaries of faculty discussions. Brief biographical summaries, focused on their relevant experience, are included for all members of the Hewlett Task Force Steering Committee--both faculty and administrators--in the list which appears as Appendix C.

## **Financial Information**

GW requests a grant of \$150,000 from the Hewlett Foundation over a two-year period. Hewlett funds will primarily be used to make it possible for faculty Hewlett Fellows to devote concentrated attention to new course development in the second summer of the project, and to provide them with modest honoraria when they participate in the first summer's workshop. Grant funds will also fund graduate student wages to assist with the administration of assessment surveys and the preparation of course materials, as well as providing one-semester stipends for three graduate students who will help faculty develop new, hands-on laboratory experiences. In addition, the Foundation's grant will make it possible for the Hewlett Task Force to conduct a special initial summer workshop on campus and three major retreats, to learn about special Washington resources in depth. These expenses include the costs of speakers, meals, and space rental charges for meetings held at area institutions.

GW will provide the matching support detailed below. The Acting Dean for Undergraduate Studies of the Columbian College, who will return to the full faculty status in the fall, will devote 20% of his time to the project, and serve as Co-chair of the Hewlett Task Force. GW's largest administrative support represents the substantial involvement of the University's Office of Academic Planning and Assessment in the project, without whose expertise in the development and administration of new evaluative approaches, and administrative coordination, the project could not succeed. GW will provide for coordination of the Hewlett Task Force retreat and meeting program by the Director of Women's Leadership Programs, as well as support through the Center for Academic Technologies. The University will also provide tuition support for the graduate students involved, and specifically target a major speaker of the Center for Excellence in Learning and Teaching. Given the high priority of the project and the substantial time that will be devoted by Steering Committee members as well as by both the Dean and the Associate Dean of the Columbian College, it is likely that the University's contribution will substantially exceed that reflected in the enclosed budget.

## **Appendices**

- A. General Curriculum Requirements
- B. Inquiry-based Approaches in the Sciences
- C. Hewlett Task Force Steering Committee
- D. Possible Washington-based General Education Courses
- E. Budget
- F. Hewlett Foundation College and University Data Sheet
- G. IRS Tax Determination Letter

