

III. ANALYSIS OF CORE CURRICULUM REQUIREMENTS

At Prairie View A&M University, there are general education course requirements in the basic (42) semester credit hour transferable core curriculum as well as in school/college core requirements. The basic core includes the following: nine (9) Semester Credit Hours (SCH) in communications, (6) SCH of English and (3) SCH of speech); (3) SCH of mathematics; (6) SCH of natural science; (6) SCH of humanities including (3) SCH from visual and performing arts; (15) SCH in social and behavioral sciences; and (3) SCH in computing.

Upon entry, over three-fifths of the first time in college freshmen are in need of academic strengthening in the basic skill areas as measured by the state mandated Texas Higher Education Assessment (THEA) formerly the Texas Academic Skills Program (TASP). . Since 1998, when the University established a very focused, well defined developmental education program, the academic strengthening of its first-time in college freshmen has increased their retention rate from 42% in 1996 to 64% in 2002. In short, the University cannot assume college readiness at the point that students begin taking courses in the core curriculum. For most, some remediation is required in reading, writing, and mathematics. While a quick review of the results on the Educational Testing Service (ETS) General Education Battery does not reveal major gains from the freshman to the junior year, there is improvement at a level that increases the student's chances of remaining in college. Because it is important to extend the time for arrival at an acceptable level of proficiency, the University began directing faculty to identify in their courses core content that could be

reinforced or taught through directed study, referrals to tutorials, or other methods. A sample standard format for the course syllabus is shown in Attachment 3 of this document.

Given the University's strong focus upon engineering, nursing, educator preparation, business, and pre-professional science and social science, students' gaining proficiency in the quantitative and verbal skills becomes paramount to their quest to remain in the pipeline leading to degrees in those fields. An example of core course strengthening is the restructuring of the so-called gate keeping courses in mathematics, chemistry, and physics as part of a \$3.8 million National Science Foundation grant to improve undergraduate education. Expected outcomes are reiterated throughout the program by students and faculty and time is devoted to closing gaps in learning achievement when noted and not months into a course.

Communications. Among the intellectual skills, the capability to express one's thoughts, feelings, aspirations, attitudes, and aptitudes is undoubtedly the most important of the core competencies. Many students who attend the University have been in communities and schools where mastery of standard conventions of linguistic expression were either devalued or not associated with success in the professional arena. While only (6) SCH in this area are required by state statute, an additional (3) SCH in speech were selected from chat II of Chapter 5 to increase the total requirement to (9) SCH due to the emphasis the faculty believed essential to place on educating students to function effectively in a society that values mastery of standard grammatical construction; utilization of logical and critical thinking skills; and clear, concise sending of oral messages that effectively inform, persuade, describe, or illustrate. To augment the curriculum, the University promotes student engagement in organizations, attendance at general University performances/events, and

enrollment in paid and unpaid internship/cooperative education experiences. The University College, the College of Arts and Sciences, and the College of Business have staffed writing laboratories. There is a chapter of Toastmaster's International, a debate/forensic team, the Honda All Star Competition, essay contests and other venues for student practice of communication skills. While the popular media competes firmly with the standard conventions taught in the college setting, students evidence an understanding of the advantages of being bi-dialectic, thus using language appropriate to the setting or context.

Mathematics. Computational adeptness is fundamental to the understanding of abstract reasoning and problem solving. Given the strong science and engineering oriented curriculum at the University, it is important to help each student to build a solid foundation of numeracy skills needed in the conduct of personal affairs as well as advanced mathematical skills needed for selected major fields of study. According to Texas Higher Education Assessment (THEA) data for students entering the University, over sixty-five percent of those requiring remediation, require it in mathematics. So severe is the problem that multiple levels of developmental math courses are offered and tutorials are made available in virtually every school/college. The shortage of certified mathematics teachers in the K-12 classroom has been cited as a primary reason for such poorly prepared students who possess ability but lack achievement in mathematics. At Prairie View A&M University, several faculty have become near legendary for their success in developing the capability through the use of graphing calculators, web-assisted course delivery, early and late day tutorials, software programs such as MAPLE and personal motivation strategies to build competence and diminish students' fear of mathematics. In one instance, a faculty member

has created a full video program that begins with basic mathematics and extends through differential equations.

Natural Sciences. Trial and error, mistake and correction are inherent in the learning of the scientific method. To grasp the nature of proofs, the evaluation of scientific thought, the interrelatedness of ideas, the formulating of hypothesis, and the uses of generalizations is to develop one's critical thinking faculties fully. It is desirable for students to experience both a lecture (theory) and laboratory (practice) in their core science courses. Due to limited facilities and faculty, the requirement was reduced to (6) SCH rather than the longstanding (8) SCH. Even so, courses are designed to provide students with some experiential learning via simulation and other methods made possible by technology. Most students enroll in biology or physical science, areas with which they are most familiar.

Humanities. (including visual and performing arts): Whether in literature, cultural studies, or the arts, the humanities are viewed as instruments of perspective, balance, reflection, and reasoned assessment of human capability, motivation, and range of behavior. One might add flexibility as a defining characteristic of the lessons taught by the humanities. As a historically black university largely populated by low-income, underserved populations, coping mechanisms for many have been gleaned from exposure to poetry, music, drama, and other forms of reflection and action that helped to analyze and interpret the meaning of life's perils and promises. Even so, too few students have an understanding of the arts and humanities representing other cultures. This is yet another area in which campus life augments the core curriculum for it is enriched by a world class thespian troupe, the Charles Gilpin Players; highly respected musical ensembles such as the Marian Anderson String Quartet which is in residence at both Prairie View A&M University and Texas A&M

University; a student literary journal, and a vast array of cultural events in which students may participate to broaden their perspective.

Social and Behavioral Sciences. Understanding change and becoming acclimated to adapting to or rejecting it for clearly defensible reasons are at the heart of a social and behavioral science education. It is important that students at Prairie View A&M University learn to differentiate between basic principles of free enterprise and comprehend the components of competition as well as the rules of the individual and government. Without exception, all professions and communities revolve around a set of beliefs, values, and attitudes. This must be understood if the graduate is to contribute substantively to a diverse society where rights, protections, and responsibilities are to be not only understood but respected. Evidence of students' maturation in this component of the core curriculum is the resurgence of interest in voting in local, state, and national elections, as well as, interest in pursuing careers in public service. In another area, student governance, it is apparent that decades of general apathy about leadership and special training for it has shown signs of waning. This has been most notable during the past three years. Over two hundred students (200) are signing up for Panther Advisor Leaders (PALS) training each summer. These young people become leading campus and community change agents.

Computing. A contemporary tool of learning, conducting work, and entertainment has impacted all of human life and will have an even greater impact in future years. Effective performance related to each of the other areas of the core curriculum—namely, communication, mathematics, natural science, humanities, and social and behavioral science—depends upon one's possessing adequate computing skills. During the 1997-2002 review cycle, the University piloted the "laptop university" concept starting in the School of

Architecture and, to a limited extent, expanded to the Colleges of Business and Nursing. Despite the rapid acceleration in student and faculty computing skills, costs to students were estimated to be too great for absorption by financial aid awards or by parents so, the University did not proceed with the plan to require all students to purchase laptops. Fortunately, as the cost per laptop continues to decline, more and more students are arriving in college with their own. Additionally, there are more than thirty laboratories on campus. Those in the library, schools and colleges, and the Memorial Student Center are available to students. Over sixty percent of the undergraduates reside on campus and some new residence halls will have access to the internet without using a dial-up feature in the Spring of 2005. Based upon assessment of usage, a full internet café featuring laptops that can be checked out for use anywhere in the five-story library will open mid Fall semester 2004.

While the computing requirement was instituted at a time when students were arriving in college with limited skills, the University has not yet elected to eliminate the requirement. It will phase in a certification of proficiency program that will allow students to “place out” if their entering computing proficiency is rated satisfactory or above.

IV. EVALUATION PROCESS AND PROCEDURES

Targeted curriculum development and review are initiated by the President, managed by the Provost and Senior Vice President for Academic and Student Affairs as well as the Deans. Actual design and shaping of the curriculum’s character is the responsibility of faculty. There is a college-wide curriculum committee supported by departmental/division committees who periodically initiate, with input from students and publics served, a review of the institutional mission, the purposes and performance of each degree program and the