

American University of Beirut
Report for New York State Education Department
Assessment of Readiness for PhD Level
January, 2006

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American University of Beirut
Report for New York State Education Department
Assessment of Readiness by the American University of Beirut
to Reintroduce the PhD Level of Studies

A. Mission, Commitment, and Long-range Planning

1. Introduction

Graduate education was introduced at the American University of Beirut (AUB) in 1904 with a program leading to a master's degree. Since then and to the present, the institution (first known as the Syrian Protestant College until its name was changed in 1920) has continued to offer graduate degree programs of study. In 1961, the University introduced a program leading to the degree of doctor of philosophy; and in 1966, the first PhD degree was awarded by the AUB Department of History to Abdullah Fayyad, an Iraqi student. During the next decade, the University introduced and supported additional doctoral degree programs in the following areas of specialization:

- Faculty of Arts and Sciences: Arabic, Arab History, Chemistry, and Physics
- Faculty of Medicine: Basic Medical Sciences and the MD-PhD

In the mid-1970s, when the Lebanese civil war erupted, AUB was severely affected by the social, political, and economic disturbances that ensued, which caused many students and faculty to leave the country. In consequence, the University's resources, both financial and academic, were suddenly and dramatically depleted, making it difficult for AUB to sustain its research facilities in good repair and remain abreast of new technologies, especially with regard to its PhD programs. In consequence, the doctoral programs were "frozen"—but not dropped—indicating that while the University could no longer offer that level of study at the time, it intended to revive its doctoral level of scholarship when circumstances and resources permitted.

In 1998-99, as peace and stability returned to Lebanon, AUB began a thorough assessment of its academic programs through a process of internal and external review. It took six years of intense effort to rebuild the University's faculty and research facilities and to restructure its academic programs and support services. This period of renewal culminated and was marked by success in the spring of 2004, when AUB received official accreditation from the Middle States Association of Colleges and Schools Commission on Higher Education (MSCHE).

With its resources rebuilt—in administration, staff, faculty, research, and enrollment management—the University in 2002-03 launched a five-year major capital campaign to raise \$140 million to provide the funds needed to sustain AUB's role in the Middle East as a leading educational institution committed to excellence in teaching and research. In conjunction, a Campus Master Plan was formulated for the installation of new and renovated facilities and enhancement of the physical environment to support the University's academic mission in the decades ahead. Implementation of that plan is now under way. As of June 2005, the University's

pool investments were \$359 million, including endowment and quasi-endowment funds, and the University had a separately invested \$22 million designated for construction projects.

In 2002-04, during the MSCHE accreditation process, AUB's master's degree programs were assessed for their content, rigor, and coherence and for the extent to which they served the University's mission and goals. During the same period and into 2005, 52 master's programs in all five faculties and in the Olayan School of Business were reviewed and approved by the Office of Higher Education, New York State Education Department, and are now registered in its Inventory of Registered Degree Programs.

In 2004-05, the University's Strategic Planning Committee on Graduate Education and Research (SPCGER) met to continue the planning process for graduate education and to define the extent and variety of research to be pursued at AUB. The committee determined that it was time to "unfreeze" and initiate the development of doctoral level education. Their recommendations on the issue of PhD programs were:

- a. AUB should become a model and paradigm of comprehensive higher education, up to and including the PhD degree, in the Middle East and beyond. It is, therefore, incumbent upon it to develop a strong research base and a broad-based graduate education program. This is in line with the president's guiding strategic principle that AUB "must become a university in the full sense of the word."
- b. By the end of the next planning period (10 years), AUB should have become a 'doctoral/research university—intensive.' Such a university is defined by the Carnegie Classification of Institutions of Higher Education as offering "a wide range of baccalaureate programs," being "committed to graduate education through the doctorate," and awarding "at least 10 doctoral degrees per year across three or more disciplines, or at least 20 doctoral degrees per year overall."
- c. If present trends persist, by the end of the subsequent planning period (20 years from now), AUB should have become a research powerhouse in the region by being a 'doctoral/research university—extensive.' Such a university is defined by the Carnegie Classification of Institutions of Higher Education as offering "a wide range of baccalaureate programs," being "committed to graduate education through the doctorate," and awarding "50 or more doctoral degrees per year across at least 15 disciplines."

It is within this context and with the intent of proposing that AUB reintroduce its PhD level of education that this report is prepared for the New York State Education Department.

2. How PhD-level education fits the mission and goals of AUB

The proposed launching of PhD-level programs, beginning with two proposed by the Faculty of Engineering and Architecture and four by the Faculty of Arts and Sciences, is the next step in the rebuilding of AUB's academic programs. This move represents a continuation and deepening of AUB's mission. In particular, it reflects

the University's commitment to the highest standards of scholarship and its readiness to assume its regional role as a research university participating in the advancement of knowledge through research and providing leadership and service to society.

AUB's mission statement, newly articulated, states:

The American University of Beirut (AUB) is an institution of higher learning founded to provide excellence in education, to participate in the advancement of knowledge through research, and to serve the peoples of the Middle East and beyond. Chartered in New York State in 1863, the University bases its educational philosophy, standards, and practices on the American liberal arts model of higher education. The University believes deeply in and encourages freedom of thought and expression and seeks to foster tolerance and respect for diversity and dialogue. Graduates will be individuals committed to creative and critical thinking, life-long learning, personal integrity and civic responsibility, and leadership.

3. Why AUB seeks to offer PhD studies

Reasons, rationale, and qualifications supporting this proposal include:

- a. *The strategic goal of the University to become a model for higher education in the Middle East and North Africa (MENA) region.* Achievement of this goal requires the reintroduction of PhD-level programs in selected areas. "AUB must relaunch a limited number of PhD programs in the next few years. We must become a university in the full sense of the word." (President John Waterbury, "State of the University Report 2004," Appendix 1. See also: <http://staff.aub.edu.lb/~webpres/speeches/2004/souaddress-23feb04.pdf>).
- b. *The existence of a burgeoning pool of candidates for higher-level education in the Arab world.* The United Nations Arab Human Development Report 2002 states that 38 percent of the population of Arab countries is under the age of 15 (see www.rbas.undp.org/ahdr). This population is now reaching university age. AUB seeks to respond to the growing needs of the region's youth at the highest level of education, especially at a time when Western universities are perceived as less hospitable to Arab students.
- c. *The urgent need for qualified and well-trained PhD graduates in Lebanon and the region.* The public educational systems have not been able to respond adequately to this need (see Munir Bashshur, *Higher Education in the Arab States*. Beirut: UNESCO Regional Bureau for Education in the Arab States, 2004). In recent years, there has been a confusing proliferation of private "universities" in Lebanon offering higher degrees without standards of international accountability. AUB, as a prominent and accredited university, will be committed to preparing its doctoral students to serve the growing needs of the region by providing a research environment and a broad-based graduate education program that is comparable to those at top-quality universities in the United States.
- d. *The well-positioned leadership of AUB in offering the best in scholarship and research in the Arab region.* With the establishment of strong PhD programs and

research centers, the University will unquestionably contribute to the production of new research and development in the region.

According to Victor Billeh, director, UNESCO Regional Bureau for Education in the Arab States: "Without research centers and laboratories, and without a critical mass of postgraduate programs and students...there would be little renewal or production of knowledge, but merely transmission of what is already known. It is imperative that universities in the Arab States develop programs of postgraduate study, with centers and laboratories for research, to provide students and faculty alike with the opportunity to produce new knowledge to the benefit of their societies." (See Munir Bashshur, *Higher Education in the Arab States*, p. xi.)

- e. PhD programs, with talented, creative students and a strong research base, will attract top-notch faculty to AUB and help retain its current research-oriented faculty.
- f. Doctoral-level programs will improve the overall atmosphere for research and scholarship at AUB, thereby enhancing teaching and research at the master's and undergraduate program levels as well.

4. Changes in the institution's constituency and their consistency with the terms of the University's mission

a. *Changes in constituency*

The reintroduction of select PhD programs, with small numbers of students, will not dramatically alter the overall student constituency of AUB. The University's primary commitment through its history has been—and will remain—to high-quality undergraduate education. The initiation of doctoral PhD programs will, however, bring salutary changes. The creation of the PhD level will improve the University's master's and undergraduate programs by enhancing the role that research-oriented activities play in the curriculum. By stimulating the recruitment and retention of excellent faculty, it will further the process of knowledge creation in the region through increased research and knowledge dissemination, thus expanding the educational horizons of the academics of tomorrow.

Currently 40 percent of AUB's graduating class of 1,500 students applies for graduate study. Half of these students return to AUB for master's studies and the other half go to universities in the US and Europe (see the *2005 AUB Student Exit Poll*, Appendix 2).

At present, faculty in many departments hold stringent academic standards for master's students and expect them to participate in a relatively high level of research and original work. Lacking doctoral students to work with, AUB professors will often ask Masters level students to produce PhD level research and to assist faculty members with their own work. These requirements are more challenging at AUB than at comparable master's programs in most US universities

The deans of each faculty/school in AUB have been working in cooperation with their faculty members during the last three years to better articulate more appropriately designed master's programs to bring them into line with comparable

programs at universities in the US. The introduction of the PhD level will help define the proper parameters and requirements of the MA/MS levels, and obviate the practice of faculty members directing study at the master's level to assist their research goals. Much progress is being made in this restructuring.

The addition of PhD programs could mean a reduction in the number of master's students receiving scholarship assistance, as some funding would be redirected towards PhD candidates. This will certainly entail a reexamination of the size and viability of each master's program. Although the number of PhD students will remain relatively small during the first 10-year planning period, the institution of the doctoral programs will require considerable review of all graduate programs and thus promote more realistic standards at the master's level.

b. *Consistency of changes with terms of the University's mission*

The addition of PhD programs further fulfills AUB's mission to "serve the people of the region in a global setting" by training academic leaders and experts in their fields. This step will enable AUB professors and students to "participate in the advancement of knowledge" through original research activities, enhanced by the addition of PhD-level programs. It will allow the University to expand its capabilities to create knowledge, to attract additional funding for research, and to attract scholars qualified to promote AUB's role as an institutional resource for regionally important research in selected fields.

5. Implications of the reintroduction of PhD-level education and the adequacy of AUB's commitment to implement the program

The implications of the academic change proposed are widespread for AUB and will affect policies, procedures, mechanisms, and governance issues at the departmental and university levels, beginning with admissions policies and materials brought into line for PhD applicants. The most serious implication of PhD-level programming, however, will be its impact on the University's budget planning and in the allocation of resources, especially with regard to faculty compensation, possible changes in teaching loads, and a continuing increase in the number of higher ranking professors, as well as in assistance made available to graduate students. Relevant library and technical support resources will have to be upgraded and increased, and physical space will have to be expanded and outfitted to meet the specific needs of PhD programs.

The strong institutional commitment to the implementation of such changes as required by the new PhD level has been expressed in principle by the AUB Board of Trustees, by the Faculty Senate, and by the University's administration. The strength of the University's commitment is evident in the focus of the AUB's strategic planning process, begun in the fall of 2004 and directly following AUB's accreditation by Middle States Association's Commission on Higher Education. (See AUB's *Guide for Developing Academic and Administrative Strategic Plans*, Appendix 3, also found at http://staff.aub.edu.lb/~webippi/Documents/Intro%20Strategic%20Planning/Guide_for_Developing_Strategic_Plans.pdf.)

Graduate education and research were identified as among the strategic institution-wide issues to be studied initially. The Strategic Planning Committee on Graduate Education and Research, composed of members of the student body, the faculty, and the administration, strongly endorsed the reestablishment of the PhD level of education in their report of August 2005 (SPCGER Final Report, Appendix 4).

6. Discussion of the new degree level among members of the faculty, the administration, and the Board of Trustees.

Members of the Academic Affairs Committee of the Board of Trustees began discussion of the reestablishment of PhD programs in their spring 2000 meeting and are supportive, in principle, of the proposal to do so. In response to several subsequent discussions at the Board of Trustees level, President Waterbury in fall 2001 established a small committee of deans and senior faculty to solicit and evaluate departmental thoughts on establishing PhD programs. In its June 2002 report, this committee recommended that the University strongly consider establishing six such programs in the fields of Arabic language and literature, Middle Eastern history, cell biology, theoretical physics, mechanical engineering, and electrical and computer engineering. The departments concerned spent the years 2002-04 developing their proposals and submitting them for evaluation by the University Senate's Board of Graduate Study and, in the case of the engineering programs, by teams of external evaluators approved by the New York State Education Department (NYSED).

The University's Board of Deans and the Faculty Senate have discussed the implications of the introduction of the PhD level in some detail. Departments now actively reviewing the feasibility of establishing PhD programs include departments in the Faculty of Engineering and Architecture, in the Faculty of Arts and Sciences, in the Faculty of Agricultural and Food Sciences, and in the Faculty of Medicine. The provost, the president, and the deans of the faculties have been supportive and fully committed to the discussion.

In general, the AUB community is in agreement that the University should relaunch PhD programs. Discussions are now focusing on which departments are ready to take this step, what the overall implications of that step will be for the institution, and how the necessary resources can be marshaled to make it possible. To address these concerns President Waterbury, in fall 2004, formed a Strategic Planning Committee for Graduate Education and Research (SPCGER), one of several institution-wide strategic planning committees (the others being General Education, Enrollment Management, Information Technology, and Institutional Positioning in relation to the External Environment). This committee—comprised of senior administrators, faculty members and academic support staff from the faculties and schools, and students—met 21 times and discussed a wide range of issues, including the academic ramifications and financial feasibility of re-launching PhD-level programs at AUB. The committee also addressed issues of governance and strategies for growth in graduate education.

The Graduate Education and Research committee submitted its final report in August 2005 (SPCGER Final Report, Appendix 4). Its recommendations are being reviewed by the University's Strategic Planning Steering Committee, chaired by President Waterbury, which is devoting attention to the question of how institutional resources will maintain excellence in all of AUB's programs of study,

including the new PhD level, and provide for the future of academic excellence at AUB.

7. Planning strategically for the new level

Undergraduate education is, and will remain, the core of AUB's educational mission. The strategic planning process recognizes that priority, but it has also established the need for AUB to move appropriately to the PhD level in certain fields. Education at the PhD level will have a positive impact on other graduate and undergraduate programs, as well as on faculty and student concerns. It therefore will play a major role in AUB's long-range planning.

The Graduate Education and Research committee's report (SPCGER Final Report, Appendix 4) proposed that by the end of the next 10-year planning period, AUB should have become a 'doctoral/research university—intensive' (as defined above in A1b).

The committee also recommended that AUB remain primarily an undergraduate university with a strong graduate component that will include a limited number of small PhD programs.

The addition of doctoral-level education will help to further other core institutional goals, in alignment with AUB's mission:

- To enhance its regional role and presence in education and research.
- To improve the quality of higher education in the MENA region by educating high-quality PhD faculty to staff the growing number of regional private and public universities.
- To strengthen the University's research relationships with other universities and with the private sector in and outside the MENA region.
- To provide a regional model of excellence in graduate education.
- To serve the peoples of the region by expanding research in areas relevant to their needs and requirements.

The SPCGER report further recommended that:

Expansion of the graduate provision requires adoption of a growth strategy... It is recommended that a logical incremental growth strategy be adopted. This is a strategy that eschews the fortuitousness involved in organic growth and seeks to attain some of the advantages of planned growth, while limiting the risk. It is based on launching a limited number of initiatives, chosen for envisaged high multiplier effect or according to other desirable criteria, monitoring them carefully over a number of years, then launching the next set of initiatives, taking advantage of the results of the preceding initiatives, as well as of the knowledge and insights garnered from the experience with them. The set of PhD programs already programmed for launching would constitute the first initiative. It is important in this regard for subsequent initiatives to consider strengthening certain basic disciplines that underpin much of applied research (e.g., linguistics, philology, and semiotics to support advanced study of languages and literatures; mathematical sciences to support advanced study of physical sciences, engineering, and business; social sciences to support advanced study of business and education). (SPCGER Final Report, p. 2, Appendix 4).

8. The market for PhD education in the Middle East

There has been very little reliable formal research on doctoral programs and the need for PhD graduates in the Middle East region. AUB is currently undertaking a formal regional marketing study that includes inquiry into the demand for PhD students, the results of which will appear in spring 2006. More informally, the director of admissions, the deans, and other administrators report that regional Ministry of Education or university officials have inquired about AUB's reestablishing PhD programs. Historically, AUB has provided the region's universities with PhD scholars and teachers. These same universities, and many other new ones in the Middle East, are looking to AUB again to be a source for qualified faculty.

The Admissions Office staff reports that students attending local and regional educational gatherings often ask about the possibility of PhD program offerings at AUB. Furthermore, travel restrictions and reduced funding for students from the Middle East to the US have resulted in an increased number of students wishing to remain in the region for their graduate studies.

The need for qualified PhD graduates, especially in the area of electrical and computer engineering, is revealed by the increasing number of inquiries received over the past year and the extent to which they reflect the increase in master's graduates, the increase in new institutions of higher learning, and the growing demand for PhD holders to support the education and research requirements of Lebanon and the region.

The appearance of new universities in the region brings a new healthy degree of competition to the higher educational scene. The number of public and private institutions of higher education in Lebanon and the rest of the Middle East has increased dramatically since the early 1970s. Table 1 below shows that the number of such private institutions in Lebanon alone increased from 4 in 1973 to 18 in 2003 to more than 40 in 2005. In the Middle East region, the number increased from 8 in 1973 to 53 in 2003.

AUB's ability to offer accredited PhD-level programs would be a positive factor in the University's attractiveness to students. At the same time, it would provide a strong and professional standard for other institutions of higher education in the region.

Table 1: Universities in a number of Arab States by date of establishment

Year:	1973		1993		2003	
Country:	Private	Public	Private	Public	Private	Public
Egypt	1	7	1	12	6	13
Jordan	0	1	8	5	10	8
Lebanon	4	1	8	1	18	1
Palestine	3	0	7	1	9	2
Syria	0	3	0	4	5	0
Saudi Arabia	0	4	0	7	0	8
UAE	0	0	0	1	5	2
Total	8	16	24	31	53	34

Source: Munir Bashshur, *Higher Education in the Arab States*. Beirut: UNESCO Regional Bureau for Education in the Arab States, 2004, p. 92.

In a survey taken of AUB graduate students (master's level) enrolled in the spring 2005 semester, 35 percent of the students responded to the survey. Of this group, 50 percent indicated that they planned to undertake a PhD degree at some point in the future, with half of them indicating they would consider taking the degree at AUB, should that possibility arise. Program accreditation and the availability of stipend support were two important considerations for these students, neither of which is generally found at universities in the region. The full survey is appended to this report (*2005 Graduate Student Survey*, Appendix 5).

9. Impact of the new degree level on existing programs

The introduction of the PhD level will not have a significant impact on the undergraduate programs, other than the positive effect of creating an environment that promotes scholarly research and original thinking. Because AUB is committed to maintaining the quality of its strong undergraduate general education program, the enrollment management program will maintain its current goals, and faculty teaching assignments in the undergraduate programs will remain stable.

In some departments, however, resources may not be sufficient to support both the master's programs at their current enrollment and the proposed PhD level. In those cases, the master's enrollment could be subject to reduction, in instances when financial aid is redirected to the doctoral programs and decreases the financial support available for master's students.

The Graduate Education and Research Committee has proposed (August 2005) that there be a review of the master's programs at AUB, to evaluate them in light of the proposed PhD programs and to consider whether strong, and in some cases, integrated programs at both levels can be offered within reasonable budget parameters (SPCGER Final Report, Appendix 4). On the other hand, enrollment in master's programs may be increased in some cases in order to improve their financial efficiency.

10. Support and other services for the PhD level

Support programs already functioning for master's students will be expanded to accommodate the initial pool of PhD-level students, which will be small initially and grow slowly. As the PhD students increase in number, however, the University will need to consider the possibility of creating a graduate school to provide centralized support for graduate students. The quality and focus of additional administrative services will be evaluated in light of the special needs of graduate students, at both the master's and PhD levels, as their numbers increase.

It is strongly expected that the creation of PhD programs will further the growth of interdisciplinary programs and research centers at AUB. AUB is a small university, and its faculty are encouraged to and already do take advantage of the expertise of colleagues in other departments in relevant fields of study. As a result, a number of research centers and groups have been established in recent years (see President

Waterbury's State of the University Report 2004, p. 5, Appendix 1). An increase in PhD-level research at AUB will further foster such research collaboration, as well as encourage new collaborations with other institutions in and outside the MENA region.

Current available facilities are adequate for the start-up of the PhD level. Meanwhile, planning is under way and the campus projects now under construction will significantly expand AUB's capacity to provide good facilities to meet the needs of PhD research and study. (See 3e below).

B. Academic Governance and Administration

1. Faculty engagement in curricular and academic standards

AUB has six academic units, or faculties and schools: Agricultural and Food Sciences, Arts and Sciences, Engineering and Architecture, Health Sciences, Medicine, and Business. According to the faculty bylaws:

Subject to the provisions of the Corporate Bylaws, rules and regulations, and the established general policies of the University, the Faculty, through its internal organization, shall determine its own academic policy and shall have authority to direct its own affairs. The dean shall refer actions by the Faculty that may affect either the financial commitments of the University, or the academic policy of the University as a whole, to the president and the provost for consideration. (From the Unified Bylaws of the AUB Faculty, Appendix 6).

Each of the faculties or schools is administered by a dean and organized into smaller academic units, which include departments, centers, institutes, programs, or schools. Each academic unit consists of academic personnel appointed to that unit. Academic units meet once a month upon the call of the chairperson or director of the unit.

Each of the smaller academic units discusses and decides upon the academic programs it offers, subject to the approval of the appropriate university groups involved. Each academic unit is responsible for setting up academic departmental requirements, for proposing and evaluating programs, and for setting and maintaining professional standards.

Each major faculty also has several standing committees, whose members are elected by the voting faculty for two-year terms. Each faculty has a standing Graduate Committee, particularly relevant for this report, which considers policies and programs at the graduate level submitted to them. The Faculty Graduate Committee acts on:

- The admission of applicants to graduate programs.
- Recommendations of departments concerning the advisor, examining committee, thesis topic, and other matters for master's-level students. PhD matters are referred to the University's Board of Graduate Studies.
- Evaluations of graduate programs, making periodic recommendations to the whole faculty and subsequently to the Board of Graduate Studies.

The Board of Graduate Studies is a standing committee of the University Senate. The senate is the highest legislative body for academic affairs in the University as a whole and is composed of members elected from the various faculties and schools. It serves as a central representative body to reflect on and develop the needs and recommendations of the faculties and schools with respect to curricula, personnel, and other matters affecting the academic functions of the University. All major academic issues, including the proposal of new programs and policies, are reviewed by the senate, which then sends its recommendations to the president, who then makes recommendations to the Board of Trustees.

2. Governance structure and processes for the new level

AUB's current governance system provides an appropriate and adequate structure for the first few years of PhD programs. The small numbers of students taken into the programs at first can be easily handled within the departments and under the guidance of the Faculty Graduate Studies Committees.

However, as PhD student numbers grow, the establishment of a graduate school will be seriously considered. The SPCGER has recommended that a study be undertaken of various models of graduate schools. A graduate school at AUB would answer to future needs of PhD students while they are resident at the University. It could provide a central admissions office for graduate students, develop coordinated policies and procedures as needed, and help administer interdisciplinary programming, working closely with AUB's academic units: faculties, departments, research centers, and institutes.

3. Administrative organization and procedures

The new PhD-level programs will be administered by the relevant chairs of departments, who are responsible to their faculty deans. Graduate study is monitored and managed by the University Senate's Board of Graduate Studies, along with the faculty's own graduate committees. The process of faculty governance currently in practice (see B1 above) is adequate for the programs being proposed. It means, however, that each of the faculties or schools are now responsible for all of the functions of graduate education, a system that may not be efficient as the number of PhD students increases.

As part of the ongoing planning process, AUB will study the question of a central graduate school. A main consideration will be the nature of the relationship of the University's faculties and deans with the graduate school in preserving and safeguarding the integrity of programs and standards.

C. Financial Resources, Facilities, Equipment

1. Adequacy of financial resources

In March 2004, the evaluation team representing the Middle States Commission on Higher Education determined that AUB met the standard for accreditation in terms of the adequacy of institutional resources to achieve its mission and goals. At that time, the team members observed:

The American University of Beirut is not unlike many higher education institutions in that there often are many more financial needs than available resources. AUB, however, suffers from two major financial issues not common to other 'American' universities: a. the Lebanese economy, and b. what was referred to...as a 'steady state of unrest.' And the institution's ability to collect from the Lebanese government those receivables related to its medical school <and hospital> will be an ongoing challenge. ... Much to its credit, AUB has, at present, balanced its budget. (MSCHE Evaluation Team Report, p. 9, Appendix 7).

Since FY 2003 the University has achieved an annual balanced fiscal result. That trend is factored into the University's latest FY 2006 budget and is expected to continue in subsequent years. Over the four-year period since the University returned to surplus, growth has occurred and many new activities and initiatives have been implemented while adhering to its commitment to a balanced budget. It should be noted that AUB's administration measures the University's financial performance in terms of its bottom line for operations as net of investment income and development activities. The University does not, however, generally include in its assessment of financial performance the growth in its investments (marked-to-market gains/losses on investments). This financial growth is an important factor in the financial stability of the operations of the University and should not be overlooked. Table 2 below illustrates these two internal benchmarks.

Table 2. Summarized financial operating results

\$1000	FY 2003	FY 2004	FY 2005 (preliminary)
Surplus (deficit) before marked-to-market gains (losses)	(43)	1,471	1,772
Marked-to-market gains	766	1,162	1,222
Net surplus	723	2,633	2,994

As can be seen, the administration's approach towards self-evaluation of financial performance is conservative. In fact, the University enjoyed healthy surpluses in FY 2003 and FY 2004, which is anticipated in FY 2005 as well. As a result, the financial resources of the University are quite sound and sustainable from the perspective of the operating budget.

2. Current financial resources and management

a. Stability of financial position

AUB has not relied on debt financing to any significant degree. It is AUB's general policy to draw funds from its investment portfolio at an annual rate of 4.75 percent of a rolling 20-quarter moving average of the value of the portfolio. Over the past four-year period, the market value of AUB's portfolio increased from \$338 million on September 30, 2001 to approximately \$372 million on September 30, 2005.

Between September 2001 and September 2004, the cash draw from those pooled assets ranged between 9.6 percent and 4.5 percent, owing to changes in the overall market value of the funds. The cash draw in fiscal 2004-05 is expected to be substantially below 4.5 percent, but final numbers are not yet in. The total value of AUB withdrawals during the period noted was \$97.8 million, part of which was for operational needs, but more than half of which was for capital projects and land acquisition.

Regarding current assets, the University's position reveals considerable medical receivables, with a balance of \$54 million as of July 2005, which is an increase from \$46 million on September 30, 2004. The accumulated receivables are due mainly to the inability of the Lebanese government to pay the bills accrued by patients under the government's national social security program, which is a challenge facing the majority of all large hospitals in Lebanon. In addition, the University has a \$6 million receivable from the Ministry of Finance for value-added tax payments due for reimbursement to AUB. Owing to the precarious nature of the Lebanese economy and the government that oversees it, the University is currently provisioning 50 percent of the VAT receivable for a more prudent financial posture.

b. Financial management and planning

AUB's financial statements are prepared in compliance with the provisions of Statement of Financial Accounting Standards No. 117, which establishes standards for external financial reporting by not-for-profit organizations. AUB's financial statements are prepared in conformity with accounting principles generally accepted in the United States. They have been audited by the accounting firm, KPMG LLP, for the last four decades. The statements are prepared on an accrual basis, and AUB follows the NACUBO accounting recommendations.

In pursuit of effective resource management, AUB maintains ongoing budget oversight to ensure the best use of resources. Several budgetary control committees monitor the alignment of resources with the approved priorities. These committees, which include the Budget Committee, Budget Review Committee, AUBMC Review Committee, and the Finance and Executive Committee of the Board of Trustees, ensure the strategic alignment of budgets with the mission statement of AUB.

The University's operating and capital budgets represent the financial expression of academic and strategic objectives that have been approved by the Board of Trustees. These are carefully developed and organized over a period of several months. In so doing, a long-range view of monetary needs is required. Every year in June, the university administration presents to the Board of Trustees a draft operating budget, along with a scenario for operations for the coming five years. At

the same meeting, a capital budget with a three-year time horizon is also approved. This is done to ensure the longer-term viability of our programs and to alert senior administration to any future trends to which we might need to pay closer attention.

In 2005, AUB embarked on a new strategic planning process that requires the involvement of all unit heads in the planning for specific faculties, schools, and support units and in the translation of those plans into financial requirements that can be expressed in dollar terms and be incorporated into approved university budgets. This is to be completed by the summer of 2006. The Office of Institutional Planning and Process Improvement has been created to oversee this important process, in close coordination with the Office of Financial Planning and the Facilities Planning and Design Unit, which is responsible for the implementation of the Campus Master Plan. In short, the University has made a fundamental shift in its planning process towards thinking and designing for the long-term future.

The audited financial statements for the institution's four most recent fiscal years are appended to this report (Audited Financial Statements, Appendix 8).

3. Supporting institutional facilities and equipment

Most of AUB's educational resources, as outlined below, have been rebuilt and developed since 1991.

a. *Laboratories*

The University's laboratory infrastructure is comprised of two major multimillion-dollar core laboratories—the Central Science Research Laboratory (established in January 2000) located on the lower campus, and the Environmental Sciences Laboratory in the Faculty of Medicine—as well as the different laboratories related to the teaching and research of science and medicine, humanities and social sciences, engineering, and computer sciences. As with the libraries, recent efforts have been under way to assess the adequacy of AUB's laboratory resources and to recommend short- and long-term plans for development. In 2001, the Inter-faculty Committee for Laboratory Development made a university-wide review and produced a report that resulted in a five-year plan for the development of laboratories across campus. As a result of that review, the committee made several recommendations for improvement and presented a budget of about \$15 million to be spent on laboratories over the next five years. This figure was in line with the resources currently available from the USAID-funded American Schools and Hospitals Abroad (ASHA) program and from the University's budget. The status of the science and research and teaching laboratories in the various faculties is being reviewed carefully and the rehabilitation process in the biology and agriculture laboratories is now under way. The maintenance, upgrading, and staffing of laboratories are given ongoing yearly reviews in order to meet the University's educational objectives.

Work has begun on integrating the engineering laboratory facilities in accordance with the multidisciplinary approach to engineering solutions. The goal is to have an integrated science and engineering experimentation and instrumentation facility capable of supporting multidisciplinary learning, research, and projects, thus enhancing both the soft (people) skills and the core technical skills of engineering graduates. Ground was broken in September 2005 for this new facility.

The 2001 review also noted that laboratory facilities in the humanities and social sciences (such as psychology, language/English, and education) are in need of development. In that regard, AUB has begun to renovate the labs used for experimental psychology research, and a laboratory for clinical and cognitive psychology is currently being established. The equipment in the math/science teaching lab has been substantially updated. Additional resources are being sought to establish, revive, or renovate laboratories dedicated to the humanities and social sciences, including music-listening labs.

b. Computer laboratories

There are two major computing labs available to all students on campus, located in Van Dyck Hall and Jafet Memorial Library. In addition, each student dormitory has a small cluster of approximately six computers. The hardware in those facilities is maintained and managed by Computing and Networking Services (CNS). In addition to the public labs, there are also labs managed by individual faculties or departments within faculties. The Faculty of Arts and Sciences runs five departmental labs, some of which are used exclusively for instructional purposes and some that are open to students from the respective departments. The School of Business has three labs, the School of Nursing and the Faculty of Agricultural and Food Sciences each has one lab, and the Faculty of Engineering and Architecture has 10–12 labs serving its various departments.

AUB has made significant progress in the past two years in developing computer maintenance and replacement systems. About 500 new computers are purchased each year and computers in public labs are typically changed every 2.5 years (as opposed to 3–4 years for offices). CNS makes ongoing efforts to ensure that changes in equipment are undertaken equitably and according to real need, although some areas may currently be over-equipped compared with others. One area requiring more attention at AUB is the need for increased technical instructional facilities, of the type more widely available at peer universities. For example, AUB did not install its first video-conferencing capability until March 2003. Classroom electronic resources also need to be developed further, an aim that will require major increases in financial allocations in this area.

A major improvement has come in the form of AUB's new wireless local area network (AUBwlan), making available all on-line resources to students and staff with a portable computer and an inexpensive wireless network card. When its acquisition was announced in 2004, AUBwlan was the largest planned wireless local area network (WLAN) in the Middle East. This ambitious project, completed in time for academic year 2005-06, is designed to provide state-of-the-art wireless connectivity to 33 buildings and 21 outdoor areas (where students usually assemble) on campus. Installed with the needs of AUB students in mind, who are expected to be the majority of its 1,000 users, AUBwlan aims to provide its users with productivity gains and simplified workflows; with access to Internet, e-mail, intranet services (file sharing, FTP services, directory services, web publishing, discussion forums, and mailing lists), CBTs, centralized Microsoft applications, library catalogs and journals, the Student Information System...and more applications to come. With wireless access available from anywhere on campus, the University is now less confined to providing physical computer laboratory space.

c. Information technology

AUB has made rapid advances in developing its data network over the past five years. CNS is responsible for the extensive data network, and AUB's information technology (IT) infrastructure has almost 5,000 data points distributed in the offices and classrooms of 54 buildings. The system's fiber cables share the same routing and duct banks as the telephone copper cables. AUBnet is a state-of-the-art asynchronous transfer mode (ATM) communications network, which enables the University to establish virtual local area networks and arrive at more flexible, secure, and cost-effective network management. The AUBnet server provides the entire campus community with e-mail and 20 to 100 MB of storage space, while a File Transfer Protocol (FTP) server allows for an on-campus internet site through which site-licensed files and shareware can be downloaded. This provides for the distribution of software and also acts as a central location to access documentation, such as instructional material. All libraries are on-line and web-enabled. The network enjoys major and timely upgrades, dictated by a regular analysis of the load and the monitoring of new technology.

The University has also made significant strides in the quality of its computer software and hardware components. CNS has been heavily involved in providing technical support in the implementation of a new financial system (Oracle), the Student Information System (SCT Banner), the Web Financial Aid, a new curriculum advising and program planning (CAPP) system that supports on-line advising, and an alumni/development system (SCT Banner). CNS also supplies technical support for all the University's hardware. All PCs, except for the large number designated for public access by students (in libraries, dormitories, and other common spaces), are under the supervision of the faculties or schools. As noted above, the University buys an average of 500 new PCs each year, with an average replacement cycle of three and a half years.

d. Classrooms

Classroom space on campus is adequate for current needs and will serve the initially small number of new PhD-level students. However, additional classroom, laboratory, and office space will be needed in 5-10 years. The demand for this additional space is being addressed by the 20-year AUB Facilities Master Plan, found on this website: <http://staff.aub.edu.lb/~webmplan/approvedcmp/facilities/facilities.html>

In addition to updating the infrastructure and technology of current classrooms, three large construction projects will add a total of 22,600 square meters of new classroom, office, and lab space. They are the new Irani Oxy Engineering Complex (IOEC), due to be completed in 2008; the new Olayan School of Business, scheduled for completion in spring 2008; and the CCC Scientific Research Center, a multi-purpose modular building that will first be used to house Engineering departments until the IOEC is completed, but later will be adapted for use as science laboratories, such as for biology or physics, and could also be used for offices and classrooms. This facility will be ready in spring 2006.

e. New student and academic facilities

In June 2005, the University's Board of Trustees approved a financing plan for ten major projects to be implemented over the next several years. These major projects, which are part of the Campus Master Plan, are:

- Charles Hostler Student Center
- Suliman S. Olayan School of Business
- Ray R. Irani Oxy Engineering Complex
- Consolidated Contracting Companies Scientific Research Building
- Medical Arts Facility
- School of Nursing
- Issam Fares Institute for Public Policies and International Affairs
- Dar Al-Handasah Shair and Partners Architecture Building
- Bechtel Building
- Engineering and Science Library

The total cost of these ten projects (inclusive of capitalized interest expenses) will be approximately \$83 million through 2008-09. Some of the projects now under way are described in brief below in order to give a better picture of the ways in which they will enhance the University's academic life in coming years.

Charles Hostler Student Center

This new center will house state-of-the-art athletic facilities (Olympic swimming pool, health and fitness center, and a multi-use gymnasium), plus student activity rooms, a 300-seat auditorium, and a café. The University's current athletic field (the Green Field) and stadium will be refurbished and a new underground parking facility will accommodate 200 cars. Estimated cost: \$15.5 million.

Suliman S. Olayan School of Business

This new construction, with a built-up area of approximately 12,000 square meters, will include facilities for the school's undergraduate, MBA, and Executive MBA programs. The new school of business is being designed to accommodate innovative methods of teaching and the availability of new technologies. Estimated cost: \$13 million.

Consolidated Contracting Companies Scientific Research Building

The CCC Scientific Research Building (SRB) is key to the implementation of several Campus Master Plan projects. It will temporarily accommodate the functions of Wings B and C of the Faculty of Engineering and Architecture, to allow for the demolition of those buildings prior to the construction of the Irani Oxy Engineering Complex. Designed for optimal flexibility in remodeling, the SRB can be adapted to the needs of various functional programs in keeping with the future vision of AUB's academic growth. Estimated cost: \$3.04 million.

Ray R. Irani Oxy Engineering Complex

The Irani Oxy Engineering Complex (IOEC) consists of a new building that will replace Engineering's Wings B and C and is designed to house all the laboratory functions of the Faculty of Engineering and Architecture. Estimated cost: \$9 million.

School of Nursing

The renovation of the School of Nursing, formerly the AUB Alumni Building, includes the demolition and redesign of the existing interior, at a cost of \$2.8

million. Work has commenced and is expected to be completed by November 2006.

Issam Fares Institute for Public Policy and International Affairs

The groundbreaking for the Issam Fares Institute took place in December 2004. Completion of the \$2.3-million endeavor is expected sometime in 2007-08.

Dar Al-Handasah Shair and Partners Architecture Building

A recent gift of \$1.5 million from Dar Al-Handasah Shair and Partners has paved the way for the renovation and full upgrading of the Architecture Building, which will bear the name of the donor. This \$3-million project is slated for completion in 2008.

4. Financial projections for the proposed programs at the new level

Appendix 9 (Financial Documents 1-7) highlights the financial implications of the proposed PhD programs. It is estimated that they will cost the University approximately \$484,934 in the first year and go up to \$1,303,789 in the fifth year.

The first six PhD programs to be proposed by AUB are in the Faculty of Engineering and Architecture (Mechanical Engineering and Electrical and Computer Engineering) and the Faculty of Arts and Sciences (Arab and Middle Eastern History, Arabic and Near Eastern Languages, Cell and Molecular Biology, and Theoretical Physics). PhD students in those programs will be awarded full tuition and stipends and as those stipends are awarded, the number of master's-level graduate assistantships will be reduced.

As the current faculty level permits and the while the number of the PhD students remains modest, it is assumed that the existing faculty members—with some additional load and the addition of two assistant professors for each program— can serve both the master's and PhD students over the first five years.

Other expenses taken into consideration include the salary and benefits of additional faculty, the increase in the budget of the library to support the PhD program, and the formation of a dean's office with the support staff to cater for graduate student needs.

Each PhD candidate will enroll in seven semesters of course work, at most, for an average of nine credit hours per semester. It is further assumed that an additional three semesters will be required for thesis preparation and finalization. Tuition for thesis work is assumed to be equivalent to a semester of nine credit hours.

Stipends will cover ten months per academic year at \$800 per month per candidate starting in the first year, with increases of two percent thereafter. Benefits are assumed to be charged to the relevant programs for each PhD candidate, starting in the second year at the current benefit rate.

A Dean's Office for Graduate Studies is projected to be formed of a dean, an assistant dean, an executive officer, a student affairs officer, a secretary, and some research assistants.

5. Instructional facilities and equipment

The addition of facilities has already begun in the Faculty of Engineering and Architecture with construction of the new CCC Scientific Research Building and the Irani Oxy Engineering Complex (see 3e above).

In support of the AUB's computational research programs in physics, mathematics, engineering, and some areas of the social sciences, the 2005-06 capital budget includes funding for upgrading the CAMS (Center for Advanced Mathematical Science) super-computer which is a key element in graduate research work at the master's and doctoral level.

In addition, funds have been set aside to bolster space improvement and equipment requirements at the University's central laboratories, which will benefit the Faculty of Arts and Sciences Biology Department, among others.

6. Institutional financial planning for the new level

Considerable effort has been expended in the development of the AUB Campus Master Plan, which represents a key facet of the University's major commitment to long-term planning. Multi-year financial planning, in place at AUB, is coordinated by the work of a financial planning unit, in collaboration with the president, the provost, the vice presidents, and members of the central administration.

Annual operating budgets are developed by more than 400 cost centers (including the AUB Medical Center), in collaboration with a central financial planning unit and the vice presidents and deans to which the cost center managers respectively report. These operating budgets are supplemented by five-year operational scenarios. Every year, multiple iterations of review are made prior to an intensive period of centralized review, at which time the deans and department heads are invited to present their plans to a committee of senior administrators that is chaired by the university president. From those reviews, a draft operating plan is prepared and proposed to the Board of Trustees at its annual meeting in June. After the board studies the draft plan, another iteration of review is made during the following two-month period, in order to incorporate any changes proposed by the board and also test the validity of the annual budget plan. Final submission of the approved operating budget to the Finance and Executive Committees of the Board of Trustees occurs in September, roughly three weeks prior to the beginning of the University's new fiscal year.

Operating results are monitored monthly to ensure that AUB remains on course and that the targets are achieved. The results in relation to budgets are published monthly and formally reviewed every three months. Queries made on the monthly reports often prompt more frequent reviews by the central administration.

D. Library and Other Information Resources

1. Adequacy of real and virtual library resources

a. Real resources

The University Libraries (UL) collections are currently at Level 3, the Study or Instructional Support Level of Jafet Memorial Library, and include reference and fundamental bibliographic tools pertaining to the subject; a significant number of seminal works and journals on the primary and secondary topics of the subject; a significant number of retrospective materials; a substantial collection of works by secondary figures; works that provide more in-depth discussions of research, techniques, and evaluation; and access to appropriate electronic resources. The current collections, in depth and variety, reflect the academic, teaching, and research interests of the faculty. The table below (figures for 2004-05) shows the UL collections relevant to the six departments proposing PhD programs.

Table 3. Real resources for the six departments proposing PhD programs

<i>Department</i>	<i>Student FTE</i>	<i>Faculty FTE</i>	<i>No. of Books</i>	<i>% of Total Book Collection</i>	<i>No. of Serials</i>	<i>% of Total Serial Collection</i>
Arabic	7	10	21,711	6.77	12*	0.5
Biology	533	18	5,062	1.58	125	5.3
Electrical Engineering and Mechanical Engineering	943	36	10,620	3.32	124	5.2
Middle Eastern History	13	9	12,897	4.03	63	2.7
Physics	46	10	4,899	1.53	86	3.7
TOTAL	1542	83	55,189	17.23%	410	17.4%

*Most Arabic serials are acquired through the UL exchange program.

b. Virtual resources

Table 4: Virtual Resources for the six departments proposing PhD programs

	<i>Databases</i>	<i>e-Book packages</i>
Arabic	JSTOR	
Biology	BIOSIS, Entomology abstracts, Genetics abstracts, SciFinder scholar	Topics in current genetics
Electrical and Computer Engineering	ACM, IEEE, Inspec	Ebrary, Safari
Mechanical Engineering	ASME on-line package, Compendex	Ebrary, Safari
Middle Eastern History	Bibliographie du levant, Encyclopedia of Islam, Index Islamicus, JSTOR	History e-Book project
Physics	Inspec, IOP on-line package	Lecture notes in physics, Safari

In addition to the discipline-specific databases above, the UL subscribe to four major multidisciplinary on-line journal packages: Elsevier Science Direct, Blackwell Synergy, Kluwer on-line package, and Springer Link.

The extensive resources of the Saab Medical Library are also available to the faculty and students in the Biology Department. Most of their databases are shared with Jafet Memorial Library, and the strictly medical databases—Medline, Scopus, and Journal Citation Reports—are available to biology graduate students.

2. Acquisition and disposition policies

a. *Collection development (acquisition) policy*

The UL have always depended on the faculty to help act as subject specialists in their areas of expertise. The collection development librarian handles gaps, lacunae, new editions, added volumes, and significant new titles not ordered by the faculty, in consultation with the library liaisons when needed and continuously checking on what courses are being offered each academic year.

The UL collection development policy deals with all aspects of collection, such as languages, chronology (current/retrospective), geographical areas, date of publication, formats and types, copies, retention, and levels and depth of collection.

The annual budget allocation takes the past and current strength of the collection into consideration, as well as the projected needs of students and faculty, expansion in the degrees offered (such as the PhD program), new departments or majors, and book prices (as in Bowker annual and so on).

Catalogs (print and on-line), prepublication brochures, and e-mail announcements are sent to all departments and schools. In addition, the UL utilize specialized review journals (English and Arabic), newspaper announcements, on-site examination, book fairs and exhibitions, etc. to select and enrich collections.

Serials are evaluated periodically by the faculty, built on a cancellation/addition policy. Usage and referred/non-referred status are factors considered when reviewing and implementing faculty decisions.

Databases are selected and evaluated by the E-Resources Committee. In addition to the criteria above, the committee benchmarks with peer university libraries.

b. *Weeding (disposition) policy*

Items to be discarded are examined by at least one professional librarian, often two, and in consultation with concerned faculty, especially in the sciences and engineering. As a rule, the UL do not discard items from the literature and Middle Eastern history collections, or classical texts in biology, engineering, mathematics, and physics. The policy includes a strict instruction to keep older material for historical research and to actively preserve it.

Items are discarded when/if they are:

- In *torn/bad* physical condition, in which case the latest new edition is ordered as a replacement.
- *Duplicate copies*, unless continuous predicted high usage statistics warrant maintaining multiple copies.
- *Obsolete/Outdated*, in which case the latest new edition is ordered.
- *Old editions*, which are discarded, in consultation with faculty.

3. Information literacy: students

The University Libraries have an Information Services Department to promote campus-wide information literacy (IL). The department markets the library resources through an active program of outreach to faculty and students. At the undergraduate entry level, to ensure an introduction to IL, information sessions are offered in courses in the English Department.

- Faculty may request a session in IL for the junior/senior class levels.
- At the graduate level (master's) customized and individual sessions, known as Thesis Clinics, are offered in the library on a regular basis. They assist the students in literature reviews.
- All users may schedule individual and customized sessions in IL, based upon research needs.
- Individual and class sessions are also offered in Citation Management Software.
- Tutorials and research guides in major disciplines, as well as tools and pathfinders to locate relevant sources for course assignments, are prepared and posted on the web.
- Campus-wide assessment is done through regular library surveys that include a section on IL—recent survey results indicated a higher than average level of satisfaction in the IL program. Statistics of usage and sessions are continuously on the increase (989 attendees in 2002-03, 2,313 in 2003-04, and 4,224 in 2004-05).
- Reference lists provided by the faculty have indicated that library resources make up 50 percent of the totality of the sources listed.

4. Information literacy: faculty and staff

The faculty are expected to assure that their students become literate in the uses of information. To that end, the faculty receive the following support:

- Information/orientation sessions are offered to all new faculty at the beginning of each semester.
- Workshops are held on a regular basis to keep library staff up-to-date with changes in services and collections, and to hone their skills in searching for information.
- Interviews are conducted with faculty to clarify the content to be included in individual courses. Based on those interviews, pathfinders, guides, and sessions that are relevant to the course are prepared. Meetings are held with academic departments regularly to inform them of new resources, either by inclusion in Course Management Software (WebCT) or by posting them on academic departmental web pages.

- The Andrew W. Mellon Foundation funds six-week summer workshops/institutes for faculty in the utilization of resources, during which the faculty create projects/assignments using the resources and which they are required to implement in their classes. An assessment of faculty participants and students has demonstrated a high level of satisfaction in the content and process of the summer program.
- The Academic Computing Center (ACC) works closely with the University Libraries, Computing and Networking Services, the Teaching and Learning Center, and other university units to facilitate access to and promote the use of educational technology among the faculty. The ACC provides training for faculty in the development of skills and supports innovation in technology-enhanced teaching, learning, and research. (See Academic Computing Center: IT Strategic Plan, Appendix 10).

5. Use of library resources in course assignments

- Most of the undergraduate language and literature courses in the English Department, including most of the required English communication courses, require library research as part of course assignments.
- Thesis Clinics or one-on-one sessions with graduate students are offered by request. 80 such research sessions have been conducted. Literature reviews as well as Citation Management Software are demonstrated.
- Graduate and research assistants are trained in the use of resources, by request or through walk-in sessions.
- An evaluation of the adequacy of Thesis Clinics was completed, indicating they were satisfactory both in content and process.

6. Library staff

A professional librarian heads or supervises each department/section in the University Libraries (UL). The current number of professional librarians (12) is low compared to peer libraries in the Association of College and Research Libraries (ACRL). A consultant's report (2002) noted the small number of professional staff compared to support staff (1:8), while in 31 southeastern US academic research libraries, the ratio is 3:5. To improve this ratio at AUB and ensure smooth succession into the future, the UL have been sponsoring support staff to study for professional degrees. This on-going program has added four new professional staff to the library in the last four years.

The UL employ various evaluation techniques, including:

- Bi-annual survey of services, collections, staff, and facilities.
- Annual benchmarking with ACRL peer libraries.
- Applying latest ACRL library standards, currently the 2004 ed., and annual compilation of relevant indicators.
- Compiling annual usage statistics of both print and e-resources
- Serials evaluation with faculty once every three years
- Departmental surveys.
- SWOT Analysis and Balanced Scorecard

7. Library resources for the PhD level

In previous budgets, an increase in the allocation for PhD programs was included—as in the case of biology, for example, where an increase of 11 percent was allotted in 2004-05.

In the 2005-06 allocation, an approximate overall 10 percent increase is planned for books and serials, excluding the annual inflation increase in the price of serials and databases, as indicated below:

Table 5. 2005-06 allocation for the six departments proposing PhD programs

<i>Department</i>	<i>Books 2005-06 Allocation</i>	<i>Serials and Database 2005-06 Allocation</i>
Arabic	\$6,000*	\$1,385**
Biology	\$22,000	244,594
Electrical and Computer Engineering	\$20,000	125,198
Mechanical Engineering	\$19,000	132,725
Middle Eastern History	\$28,000	16,429
Physics	\$15,000	396,144
Total	\$110,000	\$916,475

* The average price of an Arabic monograph is inexpensive (\$12.00) compared to Western-language titles imported from Europe and the US.

** Most Arabic periodicals are acquired on exchange (free of charge).

a. Real resources

Arabic: In preparation for the new literary translation courses in the PhD program, the library has actively planned and worked on acquiring literary translations from/to Arabic, as well as enriching the collections of Arab authors writing in languages other than Arabic.

New series were subscribed to and publications of significant publishers (Brill, Cambridge, Oxford, Institut für Geschichte der Arabisch Islamischen Wissenschaften) have been checked against our library holdings for acquisition.

Electrical Engineering: In 2006, faculty will be commissioned to supplement and strengthen UL efforts in this field.

Mechanical Engineering: In 2006, faculty will be commissioned to supplement and strengthen UL efforts in this field.

Middle East History: New series were subscribed to and standing orders placed. All significant Middle Eastern publishers are constantly checked for new acquisitions. Primary sources, such as archive editions and former Colonial Office and State Department documents related to the area, are available and are continuously updated.

Molecular Biology: Molecular and cell biology publications are being acquired actively, and to supplement and strengthen the UL efforts, faculty will be on board in 2006.

Theoretical Physics: In 2006, faculty will be commissioned to supplement and strengthen the Library's efforts in this field.

An on-line alert system will be implemented by the end of 2005, whereby faculty will be informed of latest publications in their specific fields of interest, based on a carefully drawn profile (Collection Manager).

b. Virtual resources

One of the aims of the special E-resources Committee formed in 2004 is to enrich the virtual collections to best serve the PhD programs. In addition to AUB's current E-resources, future acquisitions of packages and databases are being tried, evaluated, and considered for purchase.

8. Information literacy resources for the PhD level

The University Libraries offer an appropriate environment for information literacy (professional staff, e-classroom, wireless connections, publicly-accessible computers with technical support, adequate print and on-line resources, and an informative utilitarian web page). The customized sessions for graduate students that are in place have a proven record of success, and a stable group of repeat users testifies to the high level of credibility achieved.

9. Planning for information literacy and library support

- Two more professional librarians will be added in 2006 for the teaching of information literacy.
- A plan to provide after-hours customized and advanced sessions for working graduate students will be implemented.
- Resources will be customized to handle the research needs in the new programs.

10. The library collections meet the needs of AUB's programs

The University Libraries (UL) budget has steadily increased in the last few years to reflect the dynamic development of AUB's programs. In particular, the library collections have received attention in the following ways:

- The UL receives an approximate 8 percent annual budget increase for monographs and serials. This budget is allocated to the various

departments, with consideration for past collection strengths, current student enrollments, and fulltime equivalent (FTE) faculty.

- In 2001 the Library Faculty Liaison Program was established to increase communication between the faculty and the UL staff and to provide the staff with a means to ascertain the needs of AUB's evolving programs. The faculty liaisons assist in enhancing and enriching the collections and in dealing with gaps and lacunae, while also serving to keep library staff members apprised of changes in the University's academic programs and research activities.
- The UL staff have worked closely and effectively with faculty members to assess and develop the library collections, most recently in the newly established Center for American Studies and Research and in the Computer Science and Fine Arts departments. UL liaison with the English Department faculty has been instrumental in helping the library staff to allocate donated funds in the development of the American literature collections.
- An evaluation of the UL serials collection occurs every two years. Faculty recommend additions and cancellations to the collection, according to the needs of their programs. The most recent evaluation, which took place in May 2005, resulted in the cancellation of 208 and the addition of 163 print titles.
- Surveys are conducted regularly to assess the needs and teaching requirements of the faculty. The last survey (April 2005) showed that a high percentage of faculty (90 percent) use electronic resources. To keep up with the rising trend of electronic resource usage, three new on-line journal packages were added recently to the UL collection (approximately 1,500 electronic journals). Currently, 25 percent of the serials budget is spent on electronic resources.
- Since 2000-01, the UL staff has been compiling statistics based on the *Academic Library Trends and Statistics* of the Association of College and Research Libraries (ACRL) and using them for benchmarking with twelve peer ACRL libraries. In 2003-04, for example, AUB was closely comparable to Drexel University in the number of monographs purchased and to Brandeis University in the number of serials purchased. In expenditures for total library materials, AUB falls between Amherst College and DePaul University.
- In the same manner, the UL staff calculates the relevant indicators from the latest ACRL standards and uses them for internal assessment, evaluation, and improvement. In 2003-04, for example, UL's print serials expenditures amounted to 62 percent of materials expenditures, consistent with the 60 percent general trend among peer universities.

As planning for the new level of education at AUB proceeds, faculty concerned with setting up the proposed PhD programs will serve as subject specialists charged with studying, evaluating, identifying gaps, and suggesting titles, authors, and series for collections acquisition. The UL have asked the chairs of the relevant departments to provide the names of peer university libraries in the US, so that their librarians can be asked to compare the UL's holdings. Approximately 10 percent of AUB's current budget is planned to cover the expected annual increase in allocations for the acquisition of books and serials.

E. Faculty

1. Adequacy of the faculty for the needs of existing programs

AUB's faculty serve in five Faculties and two Schools: the Faculty of Agricultural and Food Sciences (FAFS), the Faculty of Arts and Sciences (FAS), the Faculty of Engineering and Architecture (FEA), the Faculty of Health Sciences (FHS), the Faculty of Medicine, including the Nursing School (FM), and the Suliman S. Olayan School of Business (OSB).

The faculty of AUB meets the standard as set by the Middle States Commission on Higher Education (MSCHE). In May 2004, the MSCHE evaluation team found that "for the most part the faculty is well credentialed, very dedicated, and highly energized to the good of the University and its students. They have established an environment conducive to learning, research and service to a level expected of a member of the collegiate academy." (MSCHE Evaluation Team Report, p. 19, Appendix 7, in response to AUB's MSCHE Institutional Self-Study Report, Chapter 10, Appendix 11). A complete (alphabetical) listing of AUB faculty can be found in the 2005-2006 *Catalogue*, pp. 545ff, Appendix 12, and at <http://staff.aub.edu.lb/~webregist/catalogue/faculty-list.pdf>

In the past five years, because of successful recruitment efforts and the clarification of policies regarding expectations for contract renewal and promotion, the professional quality of the faculty has significantly improved. (Academic Appointment, Reappointment, and Promotion, from the *Faculty Manual*, Appendix 13). The full *Faculty Manual* of policies and procedures is found at: <http://pnp.aub.edu.lb/university/academic/Faculty%20Manual/index.html>

Tables 6 and 7 show recent growth in the numbers of AUB's professorial faculty, excluding those in the Faculty of Medicine and the 96 FTE teaching faculty not on the professorial track (i.e., instructors, lecturers).

Table 6. Full-time professorial faculty (excluding clinical medicine)

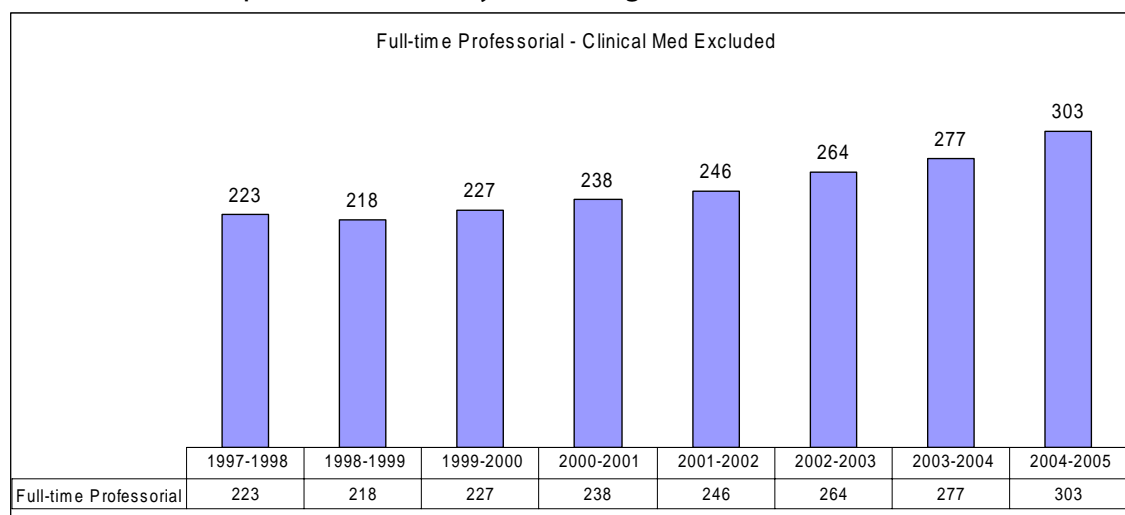
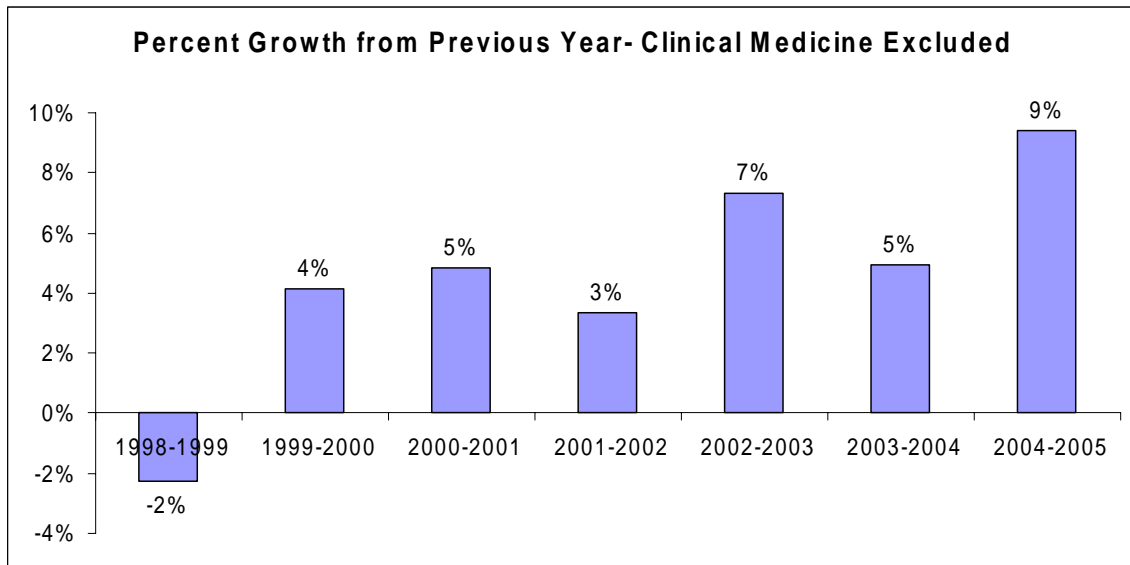


Table 7. Faculty growth (excluding clinical medicine)



Including AUB's Faculty of Medicine changes the picture slightly, but similar growth is reflected (Tables 8 and 9).

Table 8. Full-time professorial faculty (including clinical medicine)

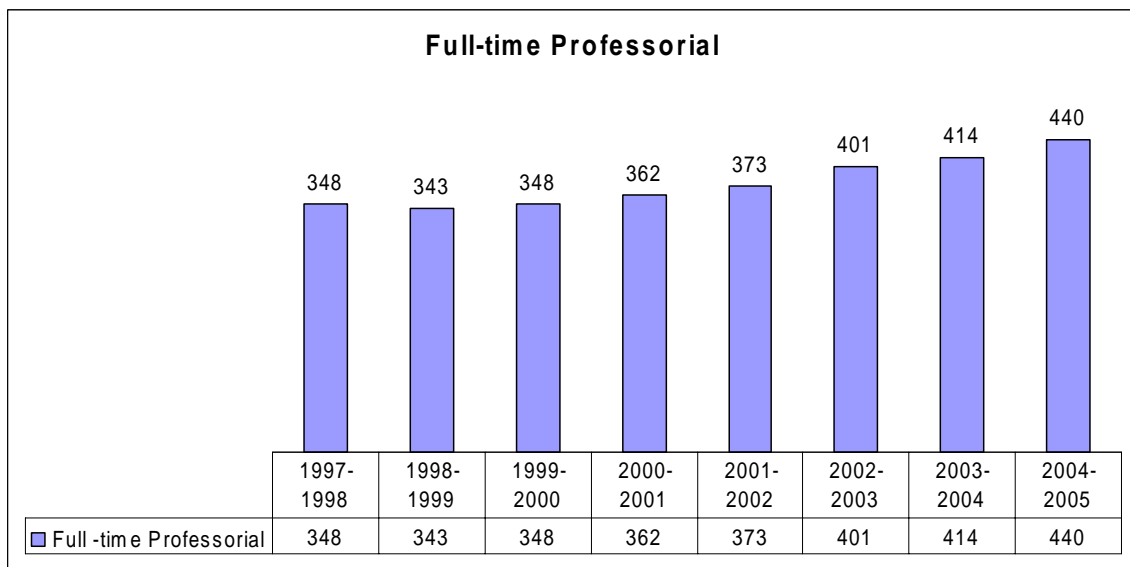
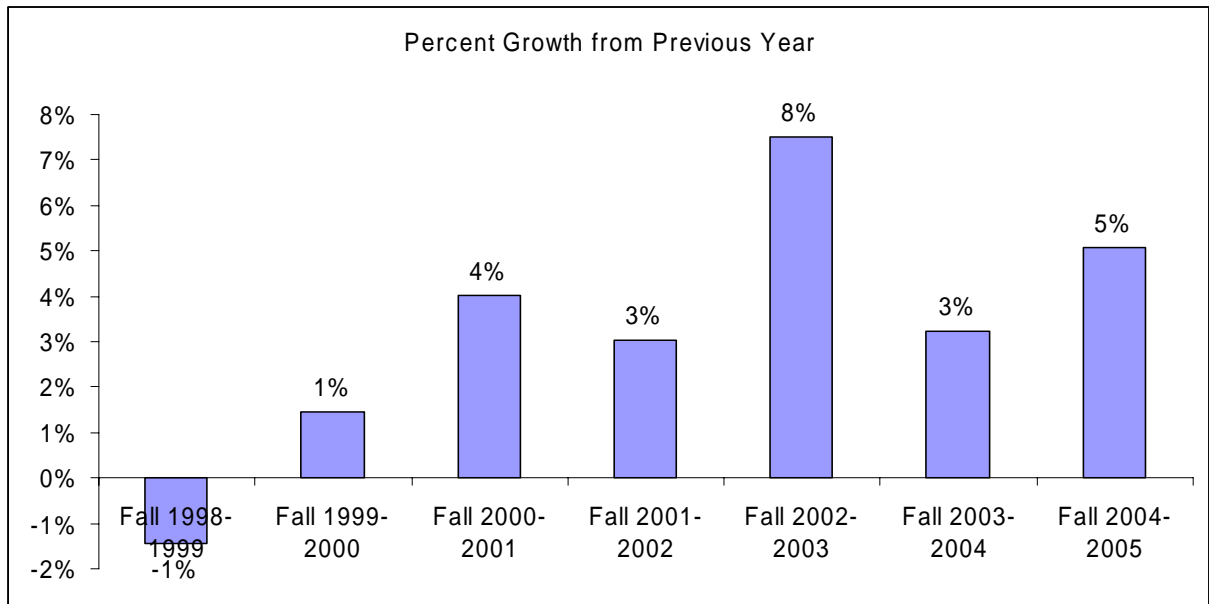


Table 9. Faculty growth (including clinical medicine)



It should be noted that although regional political tensions continue partly to hinder the University's ability to attract and retain qualified faculty from outside Lebanon and the Middle East region, AUB has nevertheless been generally successful in academic recruiting and retention. The University recruited 87 faculty members in the full-time professorial ranks (all faculties and schools) during the past five years and in general has been successful in retaining newly-hired faculty, as shown in the steadily increasing numbers.

The numbers and areas of specialization of the AUB faculty fulfill the instructional needs of the requirements for the University's existing graduate and professional programs, and for the general educational requirements of its undergraduate programs. (See departmental faculty listings in the *2005-2006 Catalogue*, Appendix 12). It is expected that two additional faculty members, as well as some shifting of workloads and responsibilities, will be needed in those departments that propose to offer PhD-level programs.

2. Adequacy of faculty to assure continuity and stability

AUB's educational programs are implemented primarily by highly qualified full-time faculty, with assistance from part-time faculty. Seventy-six percent of the 397 full-time faculty (excluding the medical faculty) in fall 2004, or 301, were in the professorial ranks. Some full-time lecturers had previously held professorial rank, but were not promoted on schedule and now serve in temporary teaching positions. All AUB instructors hold at least a master's degree and perform a supportive teaching role. Eighty-six percent of the total University faculty are full-time professionals. A complete listing of all full-time professorial faculties in ranking order is appended, indicating the depth and breadth of AUB's professorial ranks. (*AUB Full-Time Faculty*, Appendix 14).

Table 10 below shows the growth in all ranks of the full-time faculty, excluding the Faculty of Medicine.

Table 10. Full-time faculty growth, by rank

TOTAL number of faculty (Excluding Faculty of Medicine)	Fall 1997-1998	Fall 1998-1999	Fall 1999-2000	Fall 2000-2001	Fall 2001-2002	Fall 2002-2003	Fall 2003-2004	Fall 2004-2005
	FULL TIME	FULL TIME	FULL TIME	FULL TIME	FULL TIME	FULL TIME	FULL TIME	FULL TIME
Professor	61	59	65	68	73	88	98	113.0
Associate Professor	70	79	84	91	89	77	65	57.0
Assistant Professor	92	80	78	79	84	99	114	131.0
PROFESSORIAL total	223	218	227	238	246	264	277	301
Lecturer	24	19	18	19	24	25	31.00	30.0
Instructor	44	44	48	57	62	65	66.00	62.0
Assistant Instructor	3	2	1	2	2	6	8.00	4.0
NON-PROFESSORIAL Total	71	65	67	78	88	96	105	96.0
TOTAL number of faculty	294	283	294	316	334	360	382	397.0

The current faculty have substantial average years of academic service at AUB: 16 years for professors, 10 years for associate professors, and four years for assistant professors.

3. Current student/faculty ratios

Since 2000, there has been a net increase of 74 in the number of full-time professorial faculty, and the total number of full-time equivalent faculty has grown by 108. Consequently, despite the continuing growth in student numbers during the same period, AUB's faculty-to-student ratios have remained consistent. The AUB faculty-to-graduate student ratio is currently 1:12, excluding the Faculty of Medicine (FM), and is 1:9.8 including full-time professors in medicine. The faculty-to-undergraduate student ratio is 1:13.4, excluding the FM. The ratio varies across AUB faculties, and some faculties are making intense efforts to improve their faculty-to-student ratios through faculty recruitment. Nevertheless, AUB's faculty-to-student ratios rival those of elite universities in the US.

Table 11 gives the faculty-to-student ratios in the six departments that will be the first to propose new PhD programs. It should be noted that faculty members from the Faculty of Medicine will participate in some teaching and significant thesis supervision duties in connection with the Biology PhD program.

Table 11. Faculty-to-student ratios in departments proposing PhD programs

<i>Department</i>	<i>Faculty Bodies</i>	<i>Faculty FTE</i>	<i>Grad FTE</i>	<i>Undergrad FTE</i>	<i>Stud/Fac Ratio Grad</i>	<i>Stud/Fac Ratio Undergrad</i>	<i>Stud/Fac Ratio Grad + Undergrad</i>
Arabic	12	10	3	4	0.3	0.4	0.7
Biology	17	17	11	522.3	0.6	30.7	31.4
Electrical and Computer Engineering	40	30.3	29.3	617.3	1.0	20.4	21.3
History and Archeology	11	9.7	2.7	11.7	0.3	1.2	1.5
Mechanical Engineering	15	13	14.7	283	1.1	21.8	22.9
Physics	11	8.7	4.7	40.3	0.5	4.7	5.2

4. Provisions for faculty development and professional engagement

The University continues to support faculty research and development. In 2000, AUB created an Office of Grants and Contracts to support the faculty and to manage the increasing number of university and sponsored research grants. A total of \$1,092,656 in university funding for research and development was distributed in 2004-05. The allocation of funds contained in the annual report of the University Research Board 2004-05 (URB) is summarized in Tables 12 and 13.

Table 12. Faculty development grants

	<i>Faculty</i>	<i># Grants per Faculty</i>	<i>Total # Grants</i>	<i>Total (USD)</i>
Long-term	FAFS	3	22	94,176.43
	FAS	15		
	FEA	3		
	FHS	1		
Short-term	FAFS	16	102	238,633.26
	FAS	47		
	FEA	21		
	FHS	4		
	FM	6		
	OSB	8		
Visiting Scholars	FAFS	1	4	13,453.81
	FAS	1		
	FEA	1		
	FHS	1		
TOTAL		126	128	\$346,263.50

Table 13. Faculty research grants (including seed grants)

<i>Faculty</i>	<i># Grants</i>	<i>Award (USD)</i>
FAFS	16	117,000
FAS	49	229,850
FEA	36	199,750
FHS	4	26,340
FM	19	147,884
OSB	6	23,400
TOTAL	130	\$744,224

There are currently 350 active grants that are being administered by AUB's Office of Grants and Contracts for a total funding of \$19,245,182. Table 14 lists all the active grants per sponsor category. The table does not include two active ASHA grants with a total award of \$3.6 million and does not include \$3.9 million in financial aid from USAID. It should be noted that AUB is eligible for and receives funding support from European and Gulf Arab sources, as well as from the US.

Table 14. All ongoing grants, including expected overhead charges

<i>Sponsor Category</i>	<i>Current Funding (USD)</i>	<i>Number of Grants</i>
US government	443,399	7
European government	127,719	2
Lebanese government	842,528	54
Other governments	8,400	1
Foundations	7,292,643	23
NGOs	4,351,993	30
URB funding	744,224	130
MPP	195,380	18
Private	3,457,465	69
Institutions	1,781,431	16
TOTAL	\$19,245,182	350

Faculty effectiveness in research has been notable in recent years. The number of faculty publications listed in the AUB Research Report increased 51 percent between the periods 1993-1995 (21st Research Report) and 1999-2001 (24th Research Report). In addition to publications, research effectiveness may also be measured by the faculty's increasing success in attracting external funding for research. Funds from external sources (excluding ASHA grants and USAID support) rose from \$1.1 million in AY 1999-2000 to \$5.7 million in AY 2004-05.

Every effort is made to keep AUB professors engaged with peers and colleagues from US and European universities by sending AUB educators abroad to conferences, seminars, and workshops, as well as by bringing foreign educators in all fields and disciplines to address the AUB community and to work with faculty in Beirut. A selected listing of scholarly visitors to AUB in 2004-05 is appended. (Selected Visitors to AUB 2004-05, Appendix 15).

5. Faculty workload and adequacy of time

Faculty expectations at AUB include research and scholarly publication, teaching, student advising, university governance, and academic policy-making. AUB emphasizes to its faculty the core responsibilities of excellence in teaching and research, which reflect AUB's mission as a teaching-centered research university.

There is continuing study as to how a faculty member's time should be managed to balance all those responsibilities. The evaluation team from MSCHE recognized (Appendix 7, p. 19) that AUB's faculty "is sufficiently time-challenged to accomplish" all that is asked of them. In AUB's Institutional Self-Study Report for MSCHE, a faculty committee recommended that, "a system be developed to measure faculty workloads. Where indicated by the workload analysis, further steps would be taken to secure protected time and reduced teaching load for faculty." (MSCHE Institutional Self-Study Report, Appendix 11).

In the fall of 2004, a study was begun to examine faculty workloads across the University, to bring expectations into line and to examine the financial implications of current faculty workload policies for the University. This will have bearing on the expected workloads for those faculty members with responsibility for PhD programs. The preliminary report of the study was submitted in October 2005. In November 2005, a Beta version of the web-based workload program was launched over the AUB website and faculty were requested to check their automatically generated teaching workloads for accuracy as well as to begin to add information regarding research and service. It will take several years to refine this system, but the foundational work on it has been completed.

Currently, most faculty involved with graduate programs are expected to teach two courses each semester. This policy, in general, will apply to faculty in the new PhD programs in sciences and engineering as well. The administration recognizes the need for flexibility for those faculty who are managing PhD students and related research projects. In some cases, the teaching load could be reduced if a professor receives a sponsored research grant or has significant research work with PhD students. The dean of the relevant faculty will be the arbiter in these cases.

It is currently expected that between 30-50 percent of faculty time in the professorial ranks will be devoted to research. Expectations for the number of annual publications increase with the rank of the faculty member. Expectations are for one to two significant publications in international peer-reviewed journals per year for assistant professors, and for more than two per year in the higher ranks.

6. Adequacy of institutional system for faculty evaluation

In 2002, an ad hoc faculty task force proposed new university-wide policies for faculty evaluation, review, and promotion. Those new policies were approved by the Faculty Senate and the Board of Trustees in spring 2004 and have been in force since then, but an official assessment of their practice has not yet been made. (See Academic Appointment, Reappointment, and Promotion, Appendix 13).

Instructor and Course Evaluations (ICE) are administered to all students at the end of each semester and are compiled by the Office of Institutional Research and

Assessment. The evaluation results for each course and instructor, including course-specific results as well as comparisons across the faculties, are sent to the instructors, department chairs, deans, and other administrators. Three-year trend analyses for instructors, including specific course evaluations, as compared to the rest of that faculty, may also be prepared and used for academic reappointment and promotion reviews. Additionally, the "Criteria for Promotion and Review" (in Appendix M) stipulates that other tools to evaluate teaching will include exit interviews of students, evaluations by department heads or other experienced faculty, and a teaching portfolio.

7. Faculty diversity

The American University of Beirut, as an independent, non-sectarian university and as an affirmative action, equal-opportunity employer, embraces diversity among its faculty. During AY 2004–05, more than half (55 percent) of the faculty were of Lebanese nationality. The remainder were principally (27 percent) from North America (many of whom are of Lebanese origin), as well as from Europe and Australia (11 percent) and other countries (7 percent). Half of professorial/lecturer rank faculty (50 percent) received their PhDs from a North American university.

Women have traditionally been underrepresented in the faculty, particularly at the senior (professor and associate professor) levels. At present, 12 percent of professors, 28 percent of associate professors, and 38 percent of assistant professors are female. All together, women constitute one quarter (27 percent) of the full-time professoriate and 34 percent of the full-time faculty, including lecturers and instructors. AUB Human Resources Department statistics show that of the 81 full-time faculty in professorial ranks recruited during the three-year period, from AY 2003-04 to the beginning of 2005-06, 24 were women.

8. Faculty/administrative experience at the PhD level

Six departments will be proposing new PhD programs. Those departments and the members of their faculty with experience at the PhD-level are listed in the Appendix 16, Faculty Experience at the PhD-Level. Key members of the AUB administration having experience with the PhD level are listed here:

John Waterbury, President

- PhD, Columbia University, Political Science and Public Affairs
- At Princeton University, supervised solely or in partnership with one faculty member 40 PhD dissertations over the period 1980 to 2003.

Peter Heath, Provost

- PhD, Harvard University, Near Eastern Languages and Literatures, 1981.
- At Washington University, supervised two PhD students; one finished in 2002 and is currently teaching at Exeter University in England. On the dissertation committees for three other PhD candidates between 1988 and 1998.

Ibrahim Hajj, Dean of the Faculty of Engineering and Architecture

- PhD in Electrical Engineering, University of California at Berkeley, 1970.
- Taught graduate courses in electrical and computer engineering at the University of Waterloo, Ontario, Canada, and the University of Illinois, Urbana-Champaign.

- Supervised 22 PhD theses. Served on more than 50 PhD dissertation committees at the University of Illinois. Served as an external PhD thesis examiner at the University of Waterloo, Canada, and at Lund University, Lund, Sweden.

Khalil Bitar, Dean of the Faculty of Arts and Sciences

- PhD, Yale University, 1967. Theoretical physics
- Postdoctoral fellow at University of California, Berkeley, 1967-68 and at the Institute for Advanced Study, Princeton, NJ, 1968-69 and 1971-72.
- Supervised one PhD student at AUB 1974-78, but worked mostly with postdoctoral fellows at the Supercomputer Computations Research Institute, Florida State University, during the period 1985-1997 and prior to that during visits to Fermi National Accelerator Laboratory (1976-77 and 1981-82)

George Najjar, Dean of the Olayan School of Business

- PhD, University of Southern California, where he also served as an assistant professor prior to joining AUB.
- Taught several doctoral courses at the University of Southern California and served on many doctoral dissertation committees.

Nadim Cortas MD, Dean of the Faculty of Medicine

- Supervised two PhD students, one at AUB and one at Columbia. Taught graduate courses in biochemistry and pharmacology at AUB (1972-86 and 1994 to present) and molecular biology and drug-nutrient interactions at Columbia University (1989-93).

Huda Abu-Saad Huijjer RN, PhD, FEANS: Director, School of Nursing

- PhD, University of Florida.
- Supervised PhD students for the last 25 years, at the University of California in San Francisco, and at the University of Maastricht in the Netherlands (1990-2003)
- University of California in San Francisco: chairing prelim and qualifying exam committees, supervising a few PhD students as chair or member of committee, and co-coordinating PhD seminars.
University of Maastricht in the Netherlands, 1990-2003: Head of Nursing Science and sole professor of Nursing Science at the University who could supervise PhD dissertations. Also, Director of Center for Nursing Research responsible for a large number of funded research projects and PhD level research. In those two capacities, was main PhD supervisor for more than 20 dissertations; member of the dissertation committee of more than 40 dissertations in Maastricht, and other universities in the Netherlands. I have published extensively with all PhD students.
University of Surrey; European Institute of Health and Medical Sciences, UK 1999-2003: Visiting Professor and supervisor of a number of PhD theses.
External examiner of a large number of PhD dissertations in Europe mainly in the UK, Sweden, Belgium, and Finland
Currently, supervising one PhD student at the University of Perth in Australia; 10 PhDs at the University of Maastricht, and supervising 4 School of Nursing faculty currently working on their PhDs in the U.S. and Europe.

9. Accommodation of the faculty evaluation system to the new level of education

Changes in the current (new) faculty evaluation system are not anticipated for the PhD level of education, except for the way in which the evaluation system is

applied. For those professors working with PhD candidates, the duties and responsibilities of the new level will be added to the criteria for evaluation. (See *Academic Appointment, Reappointment, and Promotion*, Appendix 13).

10. Faculty qualifications for the PhD programs

The qualifications of those faculty members to be involved at the PhD level are appropriate for their anticipated roles and functions. A full list of faculty and their credentials from the six departments proposing PhD programs is appended to this report (Faculty in PhD-Proposing Departments, Appendix 17). Ongoing faculty development, as it relates to those involved in the PhD level, is part of the current evaluation and promotion system.

11. Implications for use of faculty time at the PhD level

The University recognizes that the new PhD level will require faculty to use time to (1) focus on research plans, (2) procure extramural research funding, and (3) supervise PhD students in research projects. Strategic planning to provide faculty time for these duties has begun at the department level. University policies regarding faculty workloads will reflect flexibility for those faculty members involved at the PhD level. Some of the strategies being considered to accommodate faculty expectations for the new PhD load are:

- Many of the current master's-level courses are appropriate for PhD students, and there will be cross-registration in some cases.
- New courses will need to be added, but PhD students may take them as tutorials with their advisors.
- The number of master's-level students will be lowered in relation to the number of PhD students admitted to AUB, so that the overall number of graduate students will not increase significantly in the first years.
- PhD students will be able to teach introductory courses, deliver recitations to large lecture classes, and handle lab sessions, thereby relieving some of the faculty teaching load.
- PhD students will eventually take on important research activity for faculty, especially in science and engineering, allowing faculty to progress further in their own professional work.

12. Maintaining continuity and stability of faculty at the new level

The issue of tenure for AUB faculty has been studied by the faculty and is currently being studied again by the president and the Board of Trustees. While tenure is a critical issue for faculty stability, the table below shows that AUB's current (2005-06) faculty, without benefit of tenure, have a core stability in the professorial ranks.

Table 15. Years of service, professorial ranks

<i>Rank</i>	<i>Average Years in Rank</i>	<i>Average Years of Service</i>
Professor	7.47	16.10
Associate Professor	4.50	10.40
Assistant Professor	3.42	4.10

It is expected that two additional faculty members will be hired into each department offering the PhD level.

F. Curricula, Academic Standards, and Assessment

1. Curriculum planning and assessment

AUB received initial accreditation in the spring of 2004 from the Middle States Commission on Higher Education. As a measure of its commitment to the external review process, AUB designed a continuous, strategic, self-study process that has the MSCHE *Characteristics of Excellence in Higher Education* as its reference point. <http://www.msche.org/publications/Characteristicsbook050215112128.pdf>

Though governed by its own mission, objectives, and goals, AUB addresses each of the twelve MSCHE standards of excellence in the process of ongoing institutional planning. Priorities within the planning process are determined by the needs of the educational programs and the resources of the institution, in alignment with the mission. The process requires continual internal review and periodic (five-year) external review.

Existing programs are planned and evaluated at the departmental level, and reviewed and evaluated by each faculty's Academic and Curriculum Committee as necessary. Issues of policy involving university-wide planning are taken to the Senate's Board of Graduate Studies. However, the most important part of the planning process takes place within each classroom in every discipline, and is directed by the professional judgment of the faculty member.

All academic programs have gone through a more formal process of developing mission statements that are aligned with the University mission statement. Several faculty members and departments, most notably in the Faculty of Engineering and Architecture, are now using this process as a springboard for structured curriculum development and evaluation, by aligning program goals and learning outcomes to missions.

a. Accreditation and external review

The accreditation process has driven and shaped academic planning, evaluation, and assessment in the past five years, and many academic units at AUB are currently seeking accreditation in specialized fields. There has been some resistance among faculty members to undergo a process of quantifying formal curricular development, preferring the more informal individual process that has been successful for them. However, those who have undergone accreditation and thereby adopted a process of structured curriculum planning are recognizing its value, in terms of both its practical usefulness for the planning process and for the way it holds the curriculum accountable to students. This outcome-oriented process will be an appropriate framework for planning and evaluating the quality of PhD programs

Currently, all departments in the Faculty of Engineering and Architecture (FEA) have gone through an extensive curriculum mapping procedure, and have developed learning outcomes aligned with their individual missions. Assessment tools to measure objectives and outcomes for all programs have also been developed. The impetus and context for developing outcomes and assessment in the FEA was the external accreditation standard set by the Accreditation Board for Engineering and Technology (ABET).

The Faculty of Medicine has been mapping the content of its programs in an attempt to determine student and program learning outcomes. This campaign of outcomes development in the Faculty of Medicine was formally launched in January 2003.

The School of Nursing, meanwhile, has been working on developing program learning outcomes in connection with the self-study required in its application for professional accreditation by the Commission on Collegiate Nursing Education (CCNE). The School of Nursing was formally accepted by the CCNE in spring 2005, and the site visit for the CCNE external review team has been scheduled for November 2006.

The Faculty of Health Sciences (FHS) is in the process of seeking accreditation with the Council on Education for Public Health. The preliminary self-study document will be completed in December 2005, and the site visit by the council's external evaluation committee is expected in May 2006. As part of the preparation for accreditation, course and program outcomes are being defined, integrated, and aligned with program missions. In the past few years, the faculty and staff of the FHS have successfully undertaken a process of education for curriculum development and are currently beginning to plan for the development of a new doctoral-level program.

The Olayan School of Business is currently seeking external accreditation from the Association to Advance Collegiate Schools of Business. As part of this process, they are transforming their program mission statements into explicit, measurable, and operationally-defined learning goals. These statements, reflecting high-level conceptual learning goals, will guide the curricula review process, with the goals and outcomes assessed at the track, curriculum, and course level for each degree program to assure appropriate student learning.

b. Periodic self-studies and reviews

A major recommendation from the evaluation team representing the Middle States Commission on Higher Education (March 2004) was that all university academic programs undertake periodic (five-year) self studies and reviews. As part of this self-study process:

Programs should identify learning outcomes specific to the program, evaluate curriculum and courses with regard to the organizing principles and coherence of the curriculum, examine the teaching and learning process (e.g., incorporating formative assessment tools), and assess the achievement of University and program specific learning goals using direct measures (e.g., assignments, papers, exams, capstone courses) and indirect measures. The critical component of the assessment component is to interpret the materials and then use the evidence to improve student learning (MSCHE Evaluation Team Report, p. 26, Appendix 7).

In response to this recommendation, a university-wide Committee on Learning Outcomes has been working on developing what the MSCHE evaluation team phrased as a "realistic and clear institution-wide formal assessment plan"—a two-part plan formulated to provide resources to all AUB faculty members and departments on developing and assessing program and course learning outcomes. The committee has so far: (1) written a concept paper on the importance of

developing course and program learning outcomes based on program mission and goals, and (2) is in the process of developing a two-year plan for implementing a learning outcomes process across the University. Implementation of this plan involves working individually with department chairs and faculty to develop or review their mission statements, to establish program goals and program learning outcomes aligned with the mission statements of both the department and the University, to develop course goals and course learning outcomes based on the program goals, and to assess learning outcomes. The plan takes into consideration the fact that different faculties, schools, and departments are at different stages in this process, and that the course of action taken will reflect the specific needs of individual programs. Additionally, the committee has prepared two resource handbooks (one for courses, the other for programs) to be made available to all faculty members on how to develop learning outcomes based on goals and how to assess courses and programs based on the learning outcomes.

In the past two years (2003-2005), the Center for Teaching and Learning has offered six seminars on developing learning outcomes at the program and course levels and on assessing learning outcomes. In addition, the annual Faculty Seminar on Teaching and Learning (6-8 weeks), held since 2001, and the Mellon Foundation-funded Summer Seminar on Creative Use of Resources in Course Design (6 weeks), held in 2004 and 2005, also include sessions on developing and assessing course learning outcomes and the importance of aligning them with program learning outcomes and goals. These seminars have been attended by faculty members from all faculties and schools.

2. Soundness of the existing curricula

AUB went through most challenging times during the civil war in Lebanon (1975-1991). By 1997 when things could be stabilized and secured, the difficult process of revitalization and improvement at all levels of the University began. In 1998-99 AUB received a grant from the Ford Foundation to undertake an extensive review of the curricula. In the spring and fall of that academic year, twenty-three examiners came to AUB from universities in the United States to evaluate the programs in each faculty. Their reports became the basis for AUB's efforts to work towards improving the quality of its faculty and programs and again integrating general education into its undergraduate programs, in accordance with its mission. The report is available at:

http://staff.aub.edu.lb/~webacccr/PDF_Files/External%20Acad%20Review%20Report%20summaries,%202000%2075pg.pdf

A much more extensive self-study, culminating with an external review of all the University's educational programs and resources, was undertaken in 2001-2004 in the process of accreditation by the Middle States Commission on Higher Education (Appendix 11, Chapters 11, 12). The MSCHE Evaluation Team's final review report included the following statement:

All of this effort has resulted in appropriate course programs that foster coherent learning experience. These recent reviews have at the same time provided for in-depth evaluation of programs and clearer articulation of program goals (Appendix 7, p. 20).

(AUB's) initiatives...including program review, curriculum redesign, and teaching excellence have been exceptional in their quality of process, thoroughness, wide adoption, and often enthusiastic acceptance. AUB is a model to others in achieving so much in such a relatively short period of time (Appendix 7, p. 21).

AUB's programs at the undergraduate and master's levels have also all been reviewed in detail by the New York State Education Department (NYSED) within the last three years. They were assessed as being acceptable by NYSED standards and are currently registered with New York. Each existing program has clear educational objectives for its appropriate level, and the curricula are consistent with their objectives and professional standards. The strong master's-level programs and graduate courses will be able to serve in the PhD curriculum, in most cases, with some additional courses in specific instances.

3. Assessment of curricula by peer institutions

AUB's peer institutions are geographically distant, in the United States, and this presents a challenge to arranging frequent collegial visitations by evaluating teams. However, AUB is continuously visited by visiting faculty members, scholars, and academic colleagues from abroad, several of whom have submitted official evaluations of AUB's new master's-level programs to NYSED in the context of the recent program registration process. Additionally, the report of the MSCHE evaluation team, submitted in April 2004 during AUB's accreditation review, is appended to this report (Appendix G).

4. Expectations and requirements of student learning and performance

Beginning in 1999, important initiatives were taken to rethink and restructure AUB's the curricula and academic programs. While processes have now been put in place to ensure the appropriateness of expectations, AUB will always have to deal with certain constraints and requirements beyond its control, such as:

a. *The Lebanese law requiring that 40 percent of the sophomore-level and above courses in a program leading to a bachelor's degree or equivalent should be in the area of the degree's major.* This normally means that for students admitted at the sophomore or equivalent level, a maximum of 18 three-credit hour courses may be used to meet non-major requirements. In addition to general education requirements, non-major requirements may include requirements for a minor field, or courses that are part of the pre-medicine core courses. Meeting all those requirements often means that students are left with very few, if any, free electives to take.

b. *The curricula and programs of AUB and the degrees to which they lead must be registered with the New York State Education Department.* In order for our undergraduate degrees to be registered with the State of New York, the programs leading to them should include a required "minimum amount of liberal arts content." Regents Rule 3.47 (c) specifies that for a BA degree, 90 credits of the 120 credits required for that degree (beginning with the freshman year) should be liberal arts courses. For a BS degree, the corresponding number of liberal arts credits is 60; and for a BBA or BE degree, it is 30 credits.

c. *Program stipulation by the Middle States Commission on Higher Education (MSCHE).* Standard XII in the *Characteristics of Excellence in Higher Education* of the MSCHE stipulates that an accredited institution is characterized by “a program of general education of sufficient scope to enhance students’ intellectual growth, and equivalent to at least...30 semester hours for baccalaureate programs.”

Of necessity, the many requirements and expectations for student learning and performance include the above constraints. Much is asked of AUB’s students as they fulfill the many necessary requirements for a degree. This is appropriate, however, given the University’s nature as a model of American education and its location in Lebanon among the students it serves. The University represents the high standards of two educational systems, and its students are held accountable to both.

5. Appropriateness of content, modes of instruction, and assignments to PhD level

Course content and kinds of tasks and assignments for the proposed higher level are detailed in the specific PhD program proposals. In many cases, course content and assignments basic to the master’s level will be applicable in the new higher level PhD, but with the additional expectation of increased research skills and the proven ability to produce original work.

Modes of instruction for graduate work currently include lectures, seminars, tutorials, and supervision of independent thesis work. The same modes of instruction will be applied in the proposed doctoral level of study, with the addition of focused study sessions designed to instruct and guide students to use sophisticated methods of research and a problem-solving approach. Science and engineering doctoral programs will include tutorials in a variety of faculty research laboratories, giving students exposure to different research environments.

6. Modes of assessment in current programs and their appropriateness to the PhD level

a. Current mode of assessment: The tools currently used to assess student outcomes at the general institutional level are listed and described below in Table 16.

Table 16. Assessment tools on student learning outcomes used at the institutional level

Tool	Frequency of administration	Learning outcomes measured							
		Competency in major	Breadth of knowledge	Communication	Critical thinking	Team work	Ethical reasoning	Application of knowledge	Life long learning
Graduating students exit survey conducted by OIRA/Registrar	Every year	7	1	3	1	1	1	1	2
Faculty teaching practices survey (2004) by the Office of Institutional Research and Assessment (OIRA)	Every 3 years	4		2	1			1	
AUB institutional self-study survey of students by the task teams on accreditation (2002)	Every 5 years	6	1	4	2	1		3	1
AUB institutional self-study survey of faculty by the task teams on accreditation (2002)	Every 5 years	6	1	4	2	1		3	1
Instructor Course Evaluation (ICE) by OIRA**	Every semester	2		1	1			2	
Standardized test results (GMAT, MCAT, etc.)	Annual								
College Outcome Survey to assess student outcomes related to career, emotional, intellectual, moral, physical, and social development	Annual	x	x	x	X	x	x	x	
Entering Student Survey collects a variety of information about institution's student perceptions as they enter school	Annual	x	x	x	X	x	x	x	
Tracking of the rate of acceptance of AUB graduates at AUB master's programs and higher education institutions in the US (formal process started in 2002)	Annual	⊕			⊕				⊕
CAAP tests: five international achievement tests done at the college level by sample of AUB students from all classes	Annual			⊕	⊕				
Common Data Set (CDS), Balanced Score Card (BSC) report information on graduation, persistence, retention rates, etc.	Annual								

⊕ Tool can be used to measure the stated learning goal.

External evaluation and assessment is benchmarked against the standards of the various accrediting bodies to which AUB is responsible.

A variety of conventional modes of assessment are in practice across AUB's curriculum. The Office of Institutional Research and Assessment (OIRA) conducted an institutional survey in 2002, administered to both AUB faculty and students, in which it was found that the most frequent techniques for assessment of learning outcomes reported by students were subjective exams (96 percent), objective

exams (95 percent), homework assignments (93 percent), class discussion (95 percent), presentations (90 percent), open-ended problems (75 percent), and term papers/reports (69 percent).

Capstone design courses exist in most of the undergraduate programs of the professional faculties (FAFS and FEA), which integrate multiple assessment tools to measure student competency in the major (e.g., critical thinking skills, communication skills, application of knowledge). Some faculty members use rubrics for evaluation and closely follow student progress through reflective course portfolios. In addition, master's-level students are assessed on the basis of their scholarly theses.

b. Mode of assessment at the new level

PhD-level students will be assessed in new ways. Their work will be measured against the professional standards of their fields, in terms of soundness of scholarship and elements of originality. Their work will be assessed in light of its value for publication, hence as a contribution to the body of knowledge in their discipline.

7. Clarity of program objectives and requirements

Objectives and requirements of existing programs are clearly defined and published in AUB's 2005-06 Catalogue (Appendix L). General university information for undergraduate programs includes policies for attendance (classes, lab, exams), student status (full-time, part-time, special; honor role, probation), minimum and maximum course loads, general education requirements, English language proficiency, the grading system, graduation (undergraduate and master's level) requirements, registration/withdrawal from courses, and transfer of majors. Information on policies for master's-level programs includes admission requirements, English language proficiency, academic rules and regulations, requirements for the degree (courses, language, thesis, residence), and transfer of credits.

Each departmental section of the catalogue includes a mission statement or a descriptive paragraph, and the requirements for an undergraduate or master's-level major in that department. Departmental sections of the catalogue also include a descriptive paragraph of each course offered, including credits given, prerequisites for the course, and how often the course is offered.

8. Research, independent study, and demonstration of professional performance

The courses of undergraduate programs include research, independent study, and experimentation to varying degrees, depending on the nature of the discipline and on the level of the specific course in question. In freshman and sophomore courses, these skills are introduced and reinforced, and methodologies and the use of skills in various disciplines are developed. In upper-level courses, the use and reinforcement of skills in research, independent study, and experimentation continues at a higher level, with the expectation of a higher level of scholarship and independent learning.

The undergraduate professional faculties (engineering, business, health sciences, agriculture) require some measure of professional performance in upper-level laboratory research. Junior-level students in business and engineering are required to complete professional internships in their chosen fields.

At the master's level, research, independent study, and the demonstration of professional performance become more demanding. Students are expected to have a higher level of sophistication and confidence in the performance of these skills, to apply greater rigor in the application of research and writing, and to show understanding of the professional demands of their disciplines.

At the PhD level, students will be expected to show evidence of the ability to do scholarly work at the highest levels of their professions. They are expected to possess the particular skills to undertake research in their field, to be able to write a sophisticated scholarly paper, and to know and use the professional standards that must guide their work. Additionally, PhD candidates are expected to produce original work, to research and write a dissertation, and to publish their work in an internationally accepted peer-reviewed professional journal.

9. Appropriateness of course credits

The value of credits awarded for courses at AUB depends upon the scope of the course, the number of hours per week the course meets, the modes of study (oral, written) and the amount of work/time given to a thesis or similar scholarly project. The method of delivery of a course (lecture, seminar, tutorial, lab, etc.) also has an impact upon how credit is granted. There is no quantitative formula for determining the granting of credit across the board in AUB's courses; it is determined in each case by reasonable expectations for work done, time spent, and for the quality of work produced. These expectations would also vary between lower-level courses (lower credit expectation) and upper-level courses in a student's major field, where higher expectations require more rigor, sophistication, and independent work, but perhaps less contact time with a faculty member or presence in a scheduled class.

Credit is granted only to students who have fulfilled the requirements of the course. Credit towards a graduate degree is acquired only through work designed for graduate students. AUB's credit system has been approved and deemed appropriate by the standards of the Middle States Commission on Higher Education and the NYSED.

10. Recognition of AUB as a source of academic leadership

AUB has, since its founding in 1866, played a significant role in educating leaders in many fields. It has been considered throughout the region and the world as an institution representing the highest standards of scholarship. Its graduates have taken and practiced their expertise throughout the world. Among the University's greatest resources is its corps of over 42,000 living alumni who reside in approximately 90 countries in the world, though most of them are based in the Middle East. These men and women hold leadership positions in education, government, banking, business, engineering, the sciences, and medicine. They have served, and presently serve, as prime ministers, cabinet ministers, members of

parliament, governors of central banks, diplomats, CEOs, and university presidents. Nineteen of the original fifty-one signatories of the United Nations Charter in 1945 were AUB graduates.

AUB alumni are sought after and regularly quoted in the national, regional, and international press. They are well represented and highly placed in many international agencies, including the United Nation and the World Bank and several nongovernmental organizations. AUB's Office of Information and Public Relations is regularly contacted by organizations, especially in the Arab region, that are seeking AUB experts (graduates of all ages) in a wide range of areas.

A central element of AUB's current mission to rebuild program offerings at the PhD level is to again provide students with the highest level of scholarship in their fields, and to provide the region with the level of expertise and excellence that it has come to expect from the University. In the words of Abdulatif Al-Hamad, Chairman of the Arab Fund for Economic and Social Development: "AUB's contributions to the education of regional leadership have been and remain exemplary. The Arab world urgently needs the superb training the University offers the region's future professionals."

11. Present focus of the proposed PhD initiative

AUB proposes to introduce six new PhD programs initially, selected from those disciplines that manifest the special strengths of the University—strengths that include the readiness to produce high-level and original research, a strong experienced faculty, the ability to attract funding, and the positioning to contribute to the body of knowledge as it relates specifically to the Middle East. The six PhD programs to be proposed are in the following fields:

- Arabic and Middle Eastern history
- Cell and molecular biology
- Arabic and Near Eastern languages
- Theoretical physics
- Mechanical engineering
- Electrical and computer engineering

12. Plans for continuing program development and assessment

As a result of AUB's accreditation self-study, two committees were appointed in the fall of 2004 to continue ongoing review of AUB's curriculum.

a. *The Strategic Planning Committee on General Education (SPCGE)*. This committee developed a mission statement, a vision, a rationale, goals, and requirements for general education at AUB. This represented a very thorough examination of the content, breadth, depth, and currency of the undergraduate curriculum, focusing on the general education component and affirming the importance of its centrality in the University's mission. The SPCGE, in charting a strategic course, recommended that a standing interfaculty committee be created to ensure systematic review and revision of the soundness of the undergraduate curriculum.

b. *Strategic Planning Committee on Graduate Education and Research (SPCGER)*. This committee was charged with recommending strategic objectives and a strategic

plan for the development of AUB's master's-level programs and for the development of the proposed PhD level. Because of the importance of the SPCGER's work to this report, it is recommended that their final report, submitted in August 2005, be read in its entirety (Appendix 4).

It is our current assessment that AUB's curriculum is sound, and that the processes are now in play to ensure ongoing assessment and revision in every academic unit of the University.

G. Admissions

1. Admissions requirements for existing programs

a. At the undergraduate level

Students seeking admission to AUB's undergraduate programs are required first of all to show evidence that they have satisfactorily completed secondary schooling. Lebanese students, in particular, must show evidence of having successfully passed the Lebanese Baccalaureate Part II exam. The *AUB 2005-06 Catalogue* (pp. 40-43, Appendix 12) provides detailed information concerning the equivalency of various secondary school certificates or diplomas and the class (freshman or sophomore) to which holders of those diplomas may be admitted. This information is also published on the AUB website, as well as circulated to secondary school students and school counselors during visits by the AUB director or associate director of admissions to secondary schools inside and outside Lebanon. Because AUB admits students from several different secondary systems of education, the issue of equivalence must be (and is) clearly stated.

Students with secondary school diplomas (equivalent to 12 school years, from first through twelfth grade) may apply to the freshman class in the Faculty of Arts and Sciences. The Lebanese Baccalaureate, which is based on 13 school years, is therefore considered by the Lebanese Ministry of Education as satisfying requirements for completion of the freshman level. Thus, holders of the Lebanese Baccalaureate or its equivalent are granted 30 freshman credits and may seek admission as sophomores to undergraduate programs in the FAS or as first-year professional students in all other faculties and the Olayan School of Business. The University does not recognize secondary school diplomas or certificates that are based on less than the completion of 12 school years. However, AUB may grant freshman level credits for advanced work completed at the secondary school level. As stated in the catalogue:

With approval of the academic departments concerned, freshman credit may be given for high grades on higher level (HL) examinations of the International Baccalaureate, on advanced placement (AP) examinations of the College Board, or on advanced level (A-level) examinations of the General Certificate of Education (GCE). (AUB Catalogue, p. 35, Appendix 12)

The University justified its policy of granting 30 credits to students who have completed the Lebanese Baccalaureate Part II or its equivalent in a report, "The Policy of Granting Freshman Equivalency to Holders of the Lebanese Baccalaureate," which in 2002 was approved by the New York State Education Department.

Undergraduate admission to AUB has for many years been based on a combination of scholastic aptitude and achievement. At present, the University's policy is to admit students on the basis of a single composite score, calculated as an equally weighted mean of the standardized school GPA in the two years before the last and the total score of SAT I. (See *AUB 2005-06 Catalogue*, pp. 30-39, Appendix 12.)

Additionally, applicants must show an acceptable level of English language proficiency. This requires achieving a minimum score of 525 (197 computer-based) for freshman applicants, 575 (230 computer-based) for sophomore applicants, or

600 (250 computer-based) for graduate applicants on the Test of English as a Foreign Language (TOEFL), or by achieving an acceptable score on another recognized test, such as the SAT I verbal or the English test of the ACT and the AUB English Entrance Exam.

AUB's undergraduate admissions process, which historically has been (and still is) handled within each separate faculty, is evolving towards a more centralized admissions model. Six years ago, the Office of Admissions was charged with providing centralized services for admissions recruitment, and for collecting and generating admissions data, and since then has built a strong communications network with the separate faculties. The Office of Admissions generates uniform composite scores for all undergraduate applicants and forwards this data electronically to all faculties. The Faculty Admissions Committees then separately evaluate students for admission to their individual faculties or schools. The increasing standardization of admission tools across the University and the centralizing of functions in the admissions process within the Office of Admissions have helped create consistency in the way undergraduate applicants are considered.

In 2004-05, a further step was taken with the formation of a new Centralized Undergraduate Admissions Committee (CUAC). This committee, with representative faculty membership, discusses the recommendations for undergraduate admission submitted by each faculty and issues all undergraduate admissions decisions. The Faculty Admissions Committees are still very much a part of the admissions decision-making process. But the new CUAC has helped coordinate admissions from each faculty and provide consistency in the way the admissions process works for each student.

b. At the *graduate level*

Admissions policies and criteria at the master's level are clearly presented in the *AUB 2005-06 Catalogue* (pp. 522-529, Appendix 12) and on the University's web site. Graduate admission is offered on a selective basis to applicants who show evidence of high academic ability. Students must hold "a bachelor's degree from AUB or another equivalent degree from another recognized institution, with a cumulative undergraduate average of at least 80 or its equivalent in the major field of study," and have acceptable proficiency in English (*AUB 2005-06 Catalogue*, p. 522). Additional criteria for regular graduate admission may be found in the catalogue, as follows:

- Faculty of Arts and Sciences (p. 118)
- Faculty of Engineering and Architecture (p. 322 ff)
- Faculty of Health Sciences (p. 411)
- Faculty of Agricultural and Food Sciences (pp. 78-97)
- Faculty of Medicine (p. 442)
- School of Nursing (p. 489)
- Interfaculty Environmental Sciences (p. 508)
- Olayan School of Business (p. 288)

AUB's graduate admissions process is a function of each individual faculty or school. Applicants must submit test results and undergraduate records to the appropriate department and faculty committees, and ascertain whether there are additional requirements regarding admission in their particular case. Graduate admission is

acted upon by the Graduate Committee of the faculty to which a student applies. (AUB 2005-06 Catalogue, pp. 522-523, Appendix 12. See also, *Unified Bylaws of the AUB Faculty*, Appendix 6.)

2. Degree to which the admissions process assesses applicants

a. *At the undergraduate level*

The new centralized committee has streamlined the admissions process—its work is expected to shorten the admission process for applicants and significantly reduce the amount of time spent on admissions by faculty members. The CUAC will implement the admissions guidelines as determined by each faculty/school committee, while at the same time ensuring consistency in principle and transparency in the admissions process.

AUB's high retention and graduation rates, which have risen steadily in recent years, are an indication that the admissions process is assessing applicants successfully. In 2004-05 the retention rate from the first year to the second was 94 percent indicating that AUB is successfully fulfilling students' expectations. Eighty-seven percent of those students who entered as sophomores graduated in six years or less.

b. *At the graduate level*

In the spring of 2005, a major survey of graduate students at AUB was conducted (Graduate Student Survey, Appendix E). Thirty-five percent of the graduate students responded to the survey. Of that group, 61 percent indicated that they were satisfied or very satisfied with their graduate experience at AUB. The following table shows the expected retention (self-reported), by semesters, of those students enrolled in the 2004-05 spring semester. This is the only statistical information currently available to gauge successful completion of the graduate programs.

Table 17. Number of semesters to complete master's by enrollment status

<i>Number of Semesters</i>	<i>Number of Respondents</i>	<i>Enrolled Part-time</i>	<i>Enrolled Full-time</i>	<i>Blanks</i>
2 Semesters	12	9	3	-
3 Semesters	20	7	13	-
4 Semesters	88	46	41	1
5 Semesters	110	76	33	1
6 Semesters	70	53	14	3
7 Semesters	35	30	5	-
8 Semesters	41	39	2	-
Other	12	8	4	
TOTAL	388	268	115	5

3. Admission requirements for the proposed PhD programs

The University's minimum requirements for admission to the PhD programs are as stated in the AUB Catalogue. Applicants for PhD study must hold a master's degree or its equivalent and must demonstrate, at the master's level, outstanding academic

ability: a minimum average of 85 at AUB or its equivalent, and the potential to undertake scholarly original work. Applicants are expected to show proficiency in the English language by achieving an acceptable score on the AUB English Entrance Exam, or a score of 600 or more on the TOEFL (250 on the computer-based TOEFL). Additionally, applicants for many programs are required to take the Graduate Record Examination (GRE) general test. (*AUB 2005-06 Catalogue*, pp. 522-523, Appendix 12)

Individual faculties or departments may have other requirements for admission to their programs, and students are responsible in that regard by contacting the department to which they wish to apply. Each department and Faculty Admissions Committee will bear the responsibility for determining that an applicant to a PhD program has the ability to pursue independent and original research. The criteria for this determination will vary from discipline to discipline. Because the requirements for admission will be discussed at the departmental and faculty levels, there is the strong probability that they will accurately reflect an understanding of the demands of that level of academic pursuit.

The FAS Graduate Studies Committee recently published a clear and comprehensive document on admission and requirements for PhD students, which represents a good model for other faculties to follow as they prepare for PhD students (Arts and Sciences: PhD Admission and Requirements, Appendix 18).

4. Effect of PhD-level education on student retention rates

Student retention at the graduate level will be affected by two determinants: PhD students will be required to be enrolled at AUB for five years at the graduate level, longer than is currently required for master's-level students; and undergraduate and master's-level students who are planning to go on to the PhD level might well choose to stay at AUB for their degrees, rather than move on to other universities for this level of study. For both those reasons, the retention rate for graduate students is expected to increase.

5. Effect of the new PhD-level on AUB's clientele for admission to the University

It is expected that the addition of the PhD offerings will attract strong candidates, both from among AUB's undergraduate or master's-level students and from outside the University. Admission to AUB's PhD programs is expected to be very competitive, as it will be the only PhD-granting university in the Arab region that is accredited in the US. The applicant pool for graduate study is likely to reflect a more diverse Arab population than is currently the case, as the draw will be wider.

Quoting from the PhD review report of the visiting committee for the proposed PhD in electrical and computer engineering:

It appears to be an excellent time to start a PhD program in ECE at the American University of Beirut (AUB). The department has hired many new faculty members in the past four years, and these faculty are eager to develop a more robust research program that would support PhD students. Many Lebanese students appear to be interested in staying in Lebanon for PhD studies. Since the

PhD program in ECE at King Fahd University in Saudi Arabia is the only program in the region (and it is not a very competitive program), a new PhD program at AUB could become the premier PhD program serving Lebanon and the general region. A generous endowment will provide start-up resources that would sustain the new program during much of its start-up phase. (ECE Visiting Committee Report, p. 1, Appendix 19)

Many students (in the engineering departments) have completed or are completing PhDs with universities in Europe, while they were/are being co-supervised by faculty members at AUB. If AUB offers a PhD program, students with similar goals will most likely opt to enroll at AUB rather than at European universities.

Interestingly, of the students who replied to the graduate survey (see G2b above and Appendix E), 65 percent were women and 35 percent were men. This gender-related difference probably reflects the general conservatism in Lebanese society regarding the appropriateness of women traveling abroad. It may mean that AUB's graduate programs at the new level might eventually serve more women than men.

6. Recruitment and admission standards and procedures

The expected pool of students applying for the few PhD candidacies that will be initially available at AUB, especially in engineering and the sciences, is more than sufficient for the numbers to be enrolled initially (see G5 above).

7. Professional development of admissions staff

Admissions staff and the administrative staff in individual faculties, who are currently handling recruitment and admission at the master's level, will receive in-house training in admissions functions at the PhD level.

H. Academic and Support Services

1. Assessing and developing college-level skills and literacy

A variety of assessment methods are used to evaluate the skills of students during the admissions process and throughout their career at the University. Applicants for admission are primarily judged by the faculties to which they apply, but certain common criteria are used. As explained in G1 above, applicants are assessed on the basis of a composite performance score, which is calculated as an equally weighted mean of the standardized GPA from the two years of schooling before the last and the total score of the SAT I. This “standardized GPA” is a measure of the applicant’s academic performance relative to other applicants from the same school during the previous five years. These composite scores are used differently by the individual faculties, but there is a minimum score required for admission. All faculties are given the composite scores of the entire applicant pool, not just of those students applying to their faculty. All entering undergraduate students must show that they have satisfied the English Language Proficiency Requirements (ELPR) or they will be required to enroll in a one- or two-semester Intensive English Program.

The use of composite scores for admission purposes is currently being reevaluated by the Office of Institutional Research and Assessment (OIRA), using key performance indicators and a ranking of schools based on student performance at AUB. OIRA also conducts periodic measurements of admissions criteria, such as correlations between admitted students’ composite scores with their subsequent academic performance. These studies will be used to further improve the admissions criteria.

The admission of graduate students is handled entirely by the faculties to which the students apply. In some faculties, scores from standardized tests such as the GRE (several faculties), GMAT (School of Business), or MCAT (Faculty of Medicine) are also used to assess applicants’ skill levels. Proven proficiency in English language skills may need to be addressed differently for PhD-level students in some faculties. For example, the Department of Mechanical Engineering plans to test PhD-level graduate students for English-language technical writing skills and, if they are found lacking, accepted students will be required to take a course in expository writing.

The development of college-level skills is assessed in part through the CAAP academic achievement test given to all students in their junior year. This test rates students in terms of critical thinking skills, mathematical reasoning, scientific reasoning, and writing. Additionally, two surveys are taken each year: a representative sample of undergraduates and an exit survey of graduating seniors. Data collected on these surveys measure student perceptions of the skills they have developed over the past year or, for seniors, over their university career in total. This data are compared internally with the results of past years, as well as externally with results from peer institutions.

Other initiatives to be implemented in the coming years include revised expectations for student competencies and skills, and subsequently, a redefinition of general education requirements for all undergraduate students. The Strategic Planning Committee on General Education recently proposed that all graduating AUB students should demonstrate excellence in written and spoken English communication, aptitude in written Arabic (where applicable), and competence in

the basic intellectual approaches of fields of learning in natural science, humanities, social sciences, and quantitative thought.

Methods for assessing the development of graduate-level skills vary by department. All graduate programs specify guidelines for graduate students in the completion of a certain number of credits within a given time period (usually 1-2 years) and with a certain grade-point average. Many graduate programs also include a thesis requirement.

Students in programs having an internship component (Faculty of Engineering and Architecture, School of Business) are evaluated by a faculty mentor. Student interns are also assessed by their employers for such things as professional development, communication skills, technical skills, and teamwork.

Another method used to assess student development of college-level skills is the increased use of learning outcomes at the course and program levels. Many departments and instructors include learning outcomes and course objectives in their syllabi and have worked to align them with program goals and department missions. In order to encourage use of this kind of assessment, the Center for Teaching and Learning has provided numerous seminars for faculty and chairpersons on developing and assessing learning outcomes at the course and program level. Furthermore, a committee is currently working to produce a resource handbook to be disseminated to all faculty members on developing and assessing course and program learning outcomes. (See F1 above.)

2. Academic and other university services

A full range of academic and other support services for students are available for undergraduate and graduate students at AUB. These services were assessed during the accreditation process and many changes have been implemented in the past five years. One new initiative is a Writing-Across-the-Curriculum program, funded as part of a Mellon Foundation grant, to improve student composition writing and analytical skills. It includes the establishment of a writing center open to all students, which is directed by a professor from the English Department and staffed by an English instructor and several graduate assistants. Their mission is to provide support and enhance skills for analytical thinking and other text-based processes, as well as to give students a forum to engage in discussion about their texts.

Housing is available in male and female dorms on campus. Many departments also provide referrals and message boards for apartment rentals off-campus. In terms of food services, there are five cafeterias distributed around campus, including the recently-remodeled main cafeteria, and one food kiosk. Furthermore, just outside the gates of campus are numerous restaurant, fast-food, and snack options. The University Health Insurance Plan (HIP), available to all AUB students at a reasonable fee, takes advantage of the excellent resources of the AUB Medical Center.

The new Student Information System (SCT Banner) that was fully implemented in 2001 allows students easy access to transcripts, including term and cumulative grade-point averages, and permits them to retrieve and print many of their records via web-based services.

The Office of Student Affairs, headed by a dean, was recently reorganized to enhance the variety of student support services offered. The office is in charge of new student orientation for freshmen and entering sophomores, including workshops, field trips to historical sites, and presentations to acquaint them with the campus and available student services.

The International Student Services Office was established in 2000 to address the specific needs of international students, including pre-arrival assistance, guidance on Lebanese immigration and governmental regulations, assistance with housing and employment, an airport shuttle service, orientation programs, and opportunities for international students to meet each other and integrate into the community. In addition, the AUB Ambassador Program, begun in 2001, teams international students with student volunteers who help them adjust to life at AUB and in Beirut and Lebanon. As an additional resource for graduate students, several faculties and departments have developed resource guides that include information on course requirements, thesis information, types of financial support available and how to apply for them, as well as general information important to graduate students, such as housing, career services, and student societies and clubs. The Student Handbook is found at:

<http://pnp.aub.edu.lb/university/handbook/HANDBOOK%2005-06.pdf>.

The Office of Student Affairs offers many services for the enhancement of students' health, well-being, and enjoyment. Also available is a free and confidential counseling service that caters to the personal and emotional health of AUB students. In response to growing confidence in and use of this service, the Counseling Center now has two full-time counselors.

AUB offers diverse opportunities for physical activity, including competitive sports programs and intramural and other recreational sports, as well as fitness programs and activities such as badminton, karate, aerobics, fencing, and recreational tennis. The Charles W. Hostler Student Center, currently under construction, will have an Olympic-size swimming pool, indoor courts, a gymnasium, game rooms, and a 300-seat auditorium. There is also a plethora of student societies and clubs based on specific disciplines, cultural groups, and other activities or interests.

Career and placement services are offered at the department, faculty, and university level. Through the Office of Student Affairs, a professional career counselor is available to all undergraduate and graduate students for personal advising. Group sessions help students with resume-writing and other job-hunting skills. An annual job fair is held on campus, at which undergraduate and graduate students can interact with local, regional, and international firms seeking employees. Both the School of Business and the Faculty of Engineering and Architecture have dedicated offices staffed with personnel to assist students in obtaining student internships and to help with career placement and counseling.

Although complete statistics on job placement for graduates have not been collected, there is evidence that AUB graduates looking for employment are likely to find work. With the help of the Career and Placement Services of the Student Affairs Office, 625 graduates out of a total 1,688 in the class of 2005 were placed in full-time, part-time, intern, and volunteer positions. Out of those, 190 students were recruited at the annual job fair, where 87 international, regional, and local firms exhibited. From the Olayan School of Business, all 20 graduating MBAs were placed locally or overseas. Of the 242 BBAs who graduated, 23 were known to have opted

for graduate studies and 123 accepted job offers. In the Faculty of Engineering and Architecture, there was a total of 199 engineering graduates and 106 of them were seeking employment—of these, each graduate received at least one job offer and most are known to have accepted one.

3. Student advising for current students

Faculty members of professorial rank allocate their time between teaching, research, service, and advising. According to the Faculty Manual, “Student advising ...should encompass all aspects of academic advising, including selection of electives, counseling on any academic difficulties or problems encountered, and monitoring the academic progress of advisees.” In a survey conducted by OIRA in 2004-05, it was found that professors distributed their time as follows: teaching 50 percent, research 23 percent, and service and advising 27 percent.

Undergraduate students entering as freshman are assigned a faculty advisor for their first year. Entering sophomores (those holding a Lebanese, French, or International Baccalaureate) and rising sophomores are assigned an advisor within the faculty, school, department, or program to which they have been admitted. Each faculty is responsible for assigning advisors to students.

Policies regarding graduate student advising are specific to faculties and departments. In general, this means that each student is given and/or chooses an advisor to oversee their graduate course work and, if applicable, their research and thesis work. Graduate students sometimes change advisors, depending on their area of research. The faculty advisor is responsible for ensuring the student understands and completes program and course requirements, helping with any difficulties encountered and guiding the student in the area of research. The advisor may also help graduating students with finding post-graduate employment or continuing their graduate work at another institution.

The MSCHE accreditation process identified the student advising areas of mentoring and personalized educational program planning as in need of improvement at AUB. In response to this evaluation, the various faculties and the administration have initiated efforts to enhance student advising, including the provision of workshops to train faculty members. The *Academic Advising Guide*, published through the Office of the Provost, clarifies the University’s expectations for faculty advisors. See http://staff.aub.edu.lb/~webteach/advising_guide.htm

The Faculty of Engineering and Architecture is using other advising methods to enhance faculty-student interaction, such as group advising sessions on subjects that pertain to all students at a given level, as well as peer advising.

4. New services for PhD-level students

All services currently available to undergraduate and graduate students will be offered to PhD-level students as well. They will receive more, and individual, attention from faculty supervisors because of the research-intensive nature of their work. Given the initially small number of PhD students, no new services are currently planned. As the number of students increases, the need for a graduate school to provide centralized services to graduate students will be assessed.

In recognition of the expected need of PhD-level students for private rooms in residential buildings on campus, plans are in place to increase the number of single rooms in new male and female dormitories.

Career guidance services will be enhanced in the departments and faculties that will be moving to the new level. Graduating PhD students will be personally advised on the appropriate academic job conferences to attend and assisted in obtaining postdoctoral and academic positions.

5. Professional development of support services staff

All directors within the Office of Student Affairs, including housing, counseling, and career placement, attend yearly professional conferences in the United States to keep up-to-date with current trends in student support services and for the continuous development and enhancement of professional skills. Apart from this, staff from the offices of Admissions, the Registrar, and Contracts and Grants will receive in-house training in the specific areas needed to accommodate students at the PhD level.

I. Concluding remarks

AUB proposes to reintroduce the higher PhD level at the University. This report summarizes the state of the University in 2005-2006, as it concerns those areas which will have bearing on the proposed doctoral level of education. The reintroduction of the doctoral level has the support of the Board of Trustees, the academic administration, and the faculty. It is the logical next step for AUB, following upon the renewal and revitalization of its programs during the past ten years. It is a step that will enable the University to realize its mission more abundantly, both for what it will be able to offer to students from Lebanon and the region, and for the contributions of higher research to scholarship from this part of the world. The report is, therefore, submitted for consideration to the New York State Department of Education with an affirmation of the history and mission of AUB and of the promise for the future of this University for generations of students to come.