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Education for Information Professionals in Bangladesh: A Case Study of the University of Dhaka

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Introduction

Professional competence is achieved through University education. University is the place where the root of knowledge in a field of study is fabricated. It is also the forum where research and professional queries begin. As such, the curriculum is not only for the forming of knowledge but also for the forming of attitudes, academic and professional approaches. The impact of a departmental curriculum is far greater than the mere transfer of knowledge. Syllabus or courses of studies are one-dimensional document that embody the subjects and contents outline with broad time allocation. Curriculum is three-dimensional, and takes into account the needs of the society, students, professions and the instructional methodology (Karisiddappa and Sangam, 1994). The objective is to describe the course content or what is being studied. It is a blueprint that provides fundamental guidelines for a department on: what is study; why; when; where and how it is to be studied; who should study and how the courses of studies are to be evaluated and trainees' assessed (Ocholla, 2000).

The use of ICT has transformed a modern library into an electronic library providing access to information from local and remote databases through Internet and/or Intranet, CD Networks, e-books, e-journals, computerized in-house library operations such as acquisition, classification, cataloguing, circulation serial control,

bar-coding, etc. The concepts such as 'Library without walls', 'Virtual Library', 'Electronic Library' and 'Digital Library' have already come to light. New technologies have heralded not only new ways of handling information but also introduced new formats. Information started detaching itself from just the print format. Diverseness in format has created an independence of thought in approaching it. These changes transfigured the library education and obligated the professionals to prepare themselves for the coming era.

How do these changes affect education for library and information science? If professional values are changing minimally, professional parameters slowly and information technology rapidly, it follows that education of information professionals has to reflect minimal change, moderate change and total change – all at once! (Gorman, 1999). Educating information professionals for the future can be determined by examining what skills will be required by library information professionals to enable them to adapt new and changing demands in society (Wagner, 2000). There is a need to educate and train students to the best contemporary standards in terms of curricular aims and contents, teaching methodologies, assessment practices and quality control. Modularisations of the studies and their harmonisation with actual needs of the running library and information centres are required. A standard formal library education should have devoted faculty members, well-resourced department, and scientifically liable curriculum indicating clear relationship between theory and practice, an enthusiastic and hard-working student body, management of training units. There should also be suitable classrooms, practical room, computer laboratories and computer and/or electronic equipment, suitable organizational placing, effective communication among all, and an emphasis on continuing education as community service. The University of Dhaka has played a key role for the development and provision of library education in Bangladesh. As professional, the future is never far from our thoughts, but the changes and challenges of the new millennium give a special reason to re-examine where we are coming from and where should be heading. An attempt has made here to scrutinize the bachelor program's syllabus of library education of the University since its inception of bachelor program.

Present Scenario of Library Education in Bangladesh

Library education is offered in different levels like Certificate, Post-Graduate Diploma (PGD), Bachelor, Master, MPhil and PhD. University of Dhaka is offering four-year bachelor (honors), one-year master, two-year master (evening), two-year MPhil and three-year PhD programs. University of Rajshahi is offering the same. University of Science & Technology Chittagong is offering certificate program, which has been designed by giving emphasis on Library Assistant of medical libraries only (Islam and Chowdhury, 2006). International Islamic University of Chittagong is offering one-year PGD program. Royal University of Dhaka has introduced two-year MSc in library management & information science. Darul Ihsan University is offering one-year PGD and two-year (4 semesters) MA program. Asian University of Bangladesh is offering two-year MSS in information science & library management from the year 2008.

Table 1: Pattern of library science education at different levels

Level of education	Nomenclature	Name of degree
Certificate	Certificate in Library and Information Science	CLIS
Post Graduate Diploma	Post–Graduate Diploma in Library and Information Science	PGDLIS

Bachelor	Bachelor of Information Science and Library Management	BA (Hons.)/ BSS (Hons.)
	Bachelor of Library and Information Science	BA (Hons.)
	Bachelor of Arts (Pass) (Optional subject)	BA (Pass)
Master	Master of Information Science and Library Management	MA/ MSS
	Master of Information Science and Library Management	MA (Evening)
	Master of Library and Information Science	MA
	Master of Science in Library Management and Information Science	MSc
Research	Master of Philosophy	MPhil
	Doctor of Philosophy	PhD

The above table shows different types of courses in library education are available in Bangladesh.

Library Association of Bangladesh (LAB, estd. 1956) has affiliated eleven institutions to conduct the certificate program in different places in Bangladesh. Fifteen institutions with the affiliation of National University conduct post-graduate diploma program. Besides, nine colleges are offering library and information science as an optional subject in BA (Pass) program. Among them Lalmatia Mohila College is offering four-year BA (honors) and two-year MA programs. Under the National University, ninety-nine teachers training colleges (14 govt. & 85 non-govt.) are offering Bachelor of Education (BEd), Bachelor of Education (BEd) with honors and Master of Education (MEd) programs (BANBEIS, 2008). In these programs library and information science has been included as an optional subject bearing one hundred marks in respective syllabuses (National University, 2009).

Development of Library Education at the University of Dhaka

University of Dhaka is the first ever university to establish a full-fledged department for library education in Bangladesh. Not only this, the inception of library science education in Bangladesh has been done by this university. The first three-month certificate program in librarianship started at the central library of the University in 1952. Considering the usefulness of the program, the university authority made a provision for organizing of certificate program in librarianship under the Faculty of Arts (Khorasani, 1986). This regular three months program thus started with the assistance of the Fulbright scholars and was called "Fulbright Course in Librarianship". Four Fulbright courses were conducted successively under the supervision of the then librarian of University of Dhaka, during 1955 –59 (Ahmed, 1994). The University then suspended the Fulbright certificate course, which ultimately led to the opening of one-year PGD program from the session 1959-60 based on the University of London model (Ahmed, 1981).

In 1962, a one-year Master of Arts (MA) program in library science was formulated for PGD passed students as provided in the university ordinance and regulation, chapter XXIV, Part XII (University of Dhaka, 1962). From the academic session

1962-63 with the services of distinguished American, British as well as eminent librarians of the country, the MA program was started on more extensive scale. The session 1964-65 is the milestone for the notable extension in the history of library education in Bangladesh as the programs and courses were recognized as full-fledged 'Department of Library Science' under the Faculty of Arts (University of Dhaka, 1965). In the session 1974-75, the University approved a two-year long Master of Philosophy (MPhil) program (University of Dhaka, 1974). However, it commenced from the 1 July of 1975-76 session (University of Dhaka, 1976). At the fag end of the session 1975-76, the University approved two-year MA program instead of one-year. Moreover, from the session 1978 -79, Doctor of Philosophy (PhD) program in library science was launched (University of Dhaka, 1978). During the session 1987-88, a three-year undergraduate program, Bachelor of Arts (honors) in library and information science was started (University of Dhaka, 1988), and the one-year post-graduate diploma program stopped. The department's name change as "Library and Information Science".

To spread library education, library and information science as a subsidiary subject in degree (pass course) was introduced by the University for its affiliated colleges from the session 1991-92 (University of Dhaka, 1990). Again the university introduced one-year MA from the session 1990-91, instead of two-year program, for its own library and information science graduate students only (University of Dhaka, 1995). In the session 1997-98, instead of the three-year program, the University initiated a four-year BA (honors) program in information science and library management (University of Dhaka, 1999). In the session 1999-2000 the four-year bachelor program was declared as the professional degree with effect from the 1997-98 session (University of Dhaka, 2000). From the session 2001-02, the department adorned with a new name 'Information Science and Library Management' (University of Dhaka, 2001). The University started two-year MA (evening) program from the session 2004-05 and introduced semester system instead of year course system for BA (honors) program from the session 2006-07. Currently, there are fourteen full-time faculty members, four part-time, and one supernumerary professor in the Department. Among them, eight have PhD degree and others have master degree. One faculty member obtained his PhD from UK, one from India, and another one from South Africa. Beyond this, one is pursuing PhD in Japan. Since the establishment of the Department, nearly 1200 students get BA (honors), 2000 students have MA, eight persons get MPhil, and eleven persons have been awarded PhD until December 2010. Most of the students who have passed are working in senior positions in various libraries in Bangladesh.

Table 2: Chronological development of library education in University of Dhaka

Year of Inception	Remarkable changes
1952	Three-month certificate program in librarianship
1955 –59	Fulbright course in librarianship
1959-60	One year post-graduate diploma
1962	One year master program
1964-65	Establishment of the 'Department of Library Science' under the Faculty of Arts
1974-75	Start of Master of Philosophy (MPhil) program

1975-76	Introduced two-year Master of Arts program instead of one-year
1978 -79	Start of Doctor of Philosophy (PhD) program
1987-88	Stop one year post-graduate diploma Introduced Bachelor of Arts (Honors) program, three-year duration. The department's name changed as 'Library and Information Science'
1990-91	Introduced one-year Master of Arts from the session instead of two-year program
1991-92	The University of Dhaka introduced library and information science as a subsidiary subject in degree (pass course) in its affiliated colleges
1997-98	Launched Bachelor of Arts (honors) program in information science and library management , four- year duration
1999-2000	The four-year bachelor program was declared as the professional degree with effect from the 1997-98 session
2001-02	The department's name changed as 'Information Science and Library Management'
2004-05	Launched two-year Master of Arts (evening) program
2006-07	Introduced semester system instead of year course system for Bachelor of Arts (honors) program

Library Education Syllabi for Bachelor Programs

To prepare the professionals and meet the emerging needs of information users and services the department has revised the syllabus four times in the last twenty-three years. The latest revision of the syllabus of studies took place in 2006-07.

First syllabus (July, 1987 – June, 1994)

During the session 1987-88, the Department introduced a three-year BA (honors) program (University of Dhaka, 1988). This was the first time in Bangladesh to introduce bachelor program for library education through this syllabus. The syllabus remained unchanged until 1993-94 session which were as follows:

Course No.	Course title	Duration of exam	Full marks
First Year			
BLIS101	History of books, libraries and library management	4 hours	70
	Subsidiary subject 1 (non-library science courses)	4 hours	70

	Subsidiary subject 2 (non-library science courses)	4 hours	70
	Incourse		60
	Tutorial		30
		Sub total:	300

Second Year

BLIS202	Bibliography, reference and preservation of library materials and archive management	4 hours	70
BLIS203	Principles of management	4 hours	70
	Subsidiary subject 3 (non-library science courses)	4 hours	70
	Subsidiary subject 4 (non-library science courses)	4 hours	70
	Incourse		80
	Tutorial		40
		Sub total:	400

Third Year

BLIS304	Organization of library materials	4 hours	70
BLIS305	Computer application in information system and documentation and information retrieval	4 hours	70
BLIS306	Indexing, abstracting and building library collections	4 hours	70
BLIS307	Comparative librarianship and access to records audio-visual aids in libraries	4 hours	70
BLIS308	History, culture and literature of Bangladesh	4 hours	70
	Comprehensive	2 hours	50
	Incourse		100
	Tutorial		50
	Internship in different types of libraries		25
	Viva - voce		25

			Sub total:	600
	Grand total:			1300

The students who liked to pursue honors in this subject, in the first and second year, two subsidiary courses had to be taken from non library science subject of two particular streams. One was Social Science and Humanities, which included Economics, Political Science, Sociology, History, Islamic History, English, Bengali, Arabic, Persian, Urdu, Sanskrit and Pali. The second stream was Sciences that included Physics, Chemistry, Zoology, Botany and Mathematics. Students had to choose four courses from the two streams by their own choice. The respective departments taught the subsidiary subjects only. Each course bear full marks of 100, among that 20 was allotted for in-course and 10 for tutorials.

Second syllabus (July, 1994 – June, 1997)

In the session 1994-95, the University approved the syllabus for integrated BA (honors) program (University of Dhaka, 1995). The most significant change in that session was that the whole university stopped the subsidiary programs for all the disciplines. As a result, with all other disciplines, the library science got a new dimension of integrated course, where the Department taught all the courses. The syllabus was followed until 1996-97 session. The course titles were as follows:

Course No.	Course title	Duration of exam	Full marks
First Year			
BLIS 101	History of books and libraries	4 hours	100
BLIS 102	Basic cataloguing and classification (theory)	4 hours	100
BLIS 103 (A)	Building library collection	2 hours	50
BLIS 103 (B)	English language	2 hours	50
BLIS 104	Archives and preservation of library materials	4 hours	100
	Tutorial		15
	Viva - voce		15
		Sub total:	430
Second Year			
BLIS 205	Bibliography and reference	4 hours	100
BLIS 206 (A)	Principles of management	2 hours	50
BLIS 206 (B)	Library management	2 hours	50
BLIS 207	Indexing and abstracting	4 hours	100

BLIS 208 (A)	Audio-visual aids and current trends in library and information science	2 hours	50
BLIS 208 (B)	Social organizations	2 hours	50
BLIS 209 (A)	Library development in Bangladesh	2 hours	50
BLIS 209 (B)	Bengali language and literature of Bangladesh	2 hours	50
	Tutorial		15
	Viva - voce		15
		Sub total:	530

Third Year

BLIS310 (A)	Organization of library materials (Classification theory)	2 hours	50
BLIS310 (B)	Organization of library materials (Cataloguing theory)	2 hours	50
BLIS311 (A)	Computer application in libraries and information systems	2 hours	50
BLIS311 (B)	Public relations: its methods and applications	2 hours	50
BLIS312	Documentation and information retrieval	4 hours	100
BLIS313 (A)	Comparative librarianship	4 hours	75
BLIS313 (B)	Internship		25
BLIS 314 (A - 1)	Classification (practical)	1.5 hours	25
BLIS 314 (A - 2)	Cataloguing (practical)	1.5 hours	25
BLIS314 (B)	History and culture of Bangladesh	2 hours	50
	Tutorial		20
	Viva - voce		20
		Sub total:	540
	Grand total:		1500

Third syllabus (July, 1997 – June, 2006)

In the session 1997-98, the department introduced four-year integrated BA (honors) instead of three-year program keeping pace with the changing situation in the field of information and communication technology, and necessary changes have also been made in the course curriculum that followed until 2005-06 session (University of Dhaka, 1998). The course titles were as depicted below:

Course no.	Course title	Duration of exam	Full marks
First Year			
BISLM 101	Foundation of information and library studies	4 hours	100
BISLM 102	Organization of information	4 hours	100
BISLM 103	English language	4 hours	100
BISLM 104	Bengali language	4 hours	100
	Tutorial		10
	Viva voce		10
	Sub total:		420
Second Year			
BISLM205	Information sources and services	4 hours	100
BISLM206	New Technologies and current trends in information systems	4 hours	100
BISLM207 (A)	Social organizations	2 hours	50
BISLM207 (B)	Records and archives management	2 hours	50
BISLM208 (A)	Information resources development	2 hours	50
BISLM208 (B)	Information production, marketing and public relation	2 hours	50
BISLM209 (A)	Writing, editing and publishing	2 hours	50
BISLM209 (B)	Socio-political history of Bangladesh	2 hours	50
	Tutorial		10

	Viva voce		10
	Sub total:		520

Third Year

BISLM310 (A)	Indexing and abstracting	2 hours	50
BISLM310 (B)	Applied statistics	2 hours	50
BISLM311	Information science, communication and documentation	4 hours	100
BISLM312	Automation of information institution	4 hours	100
BISLM313 (A)	Database design and applications	2 hours	50
BISLM313 (B)	Hardware maintenance and troubleshooting	2 hours	50
BISLM314	Management theories and systems	4 hours	100
	Tutorial		15
	Viva voce		15
	Sub total:		530

Fourth Year

BISLM415 (A)	Organization of knowledge: Cataloguing (theory)	2 hours	50
BISLM415(A-I)	Organization of knowledge: Cataloguing (practical)	1 hour	25
BISLM415 (B)	Organization of knowledge: Classification (theory)	2 hours	50
BISLM415(B-I)	Organization of knowledge: Classification (theory)	1 hour	25
BISLM416	System analysis and design	4 hours	75
BISLM417	Information networking and resources sharing	4 hours	100
BISLM418	Research methodology	4 hours	75
BISLM419	International and comparative librarianship	4 hours	100
	Tutorial		15
	Viva voce		15

			530
Sub total:			530
Grand total:			2000

Fourth syllabus (July, 2006 –)

From the session 2006-07, the University introduced semester system instead of year system for BA (honors) program. A total eight semesters or four years is required to complete the whole program (University of Dhaka, 2008). At the same time, a new syllabus with credit system has been approved for semester system. Course titles, marks and credits are shown below:

Course no.	Course title	Duration of exam	Full marks	Credits
First Year: First Semester				
BISLM101	Basics of information science and library management	4 hours	100	4
BISLM102	English language	4 hours	100	4
BISLM103	Bengali language	4 hours	100	4
	Class attendance and participation		5	1
	Viva voce/Presentation		20	
		Sub total:	325	13
First Year: Second Semester				
BISLM104	Organization of information	4 hours	100	4
BISLM105	Information sources and services	4 hours	100	4
BISLM106	Information resources development	4 hours	100	4
	Class attendance and participation		5	1
	Viva voce/Presentation		20	
		Sub total:	325	13
Second Year: Third Semester				
BISLM207	New technologies and current trends in information systems	4 hours	100	4
BISLM208	Information and society	4 hours	100	4

BISLM209	Socio-political history of Bangladesh	4 hours	100	4
	Class attendance and participation		5	
				1
	Viva voce/Presentation		20	
		Sub total:	325	13

Second Year: Forth Semester

BISLM210	Records and archives management	4 hours	100	4
BISLM211	Computer hardware maintenance and Trouble shooting	4 hours	100	4
BISLM212	Writing, editing and publishing	4 hours	100	4
	Class attendance and participation		5	
				1
	Viva voce/Presentation		20	
		Sub total:	325	13

Third Year: Fifth Semester

BISLM313	Indexing and abstracting	4 hours	100	4
BISLM314	Automation of information institutions	4 hours	100	4
BISLM315	Management of information institutions	4 hours	100	4
BISLM316	Information production marketing and public relation	4 hours	100	4
	Class attendance and participation		5	
				1
	Viva voce/Presentation		20	
		Sub total:	425	17

Third Year: Sixth Semester

BISLM317	Information science documentation and communication	4 hours	100	4
BISLM318	Database design and applications in library and information systems	4 hours	100	4
BISLM319	Organization of knowledge (Classification theory)	4 hours	100	4

BISLM320	Organization of knowledge (Cataloguing theory)	4 hours	100	4
	Class attendance and participation		5	
				1
	Viva voce/Presentation		20	
		Sub total:	425	17

Fourth Year: Seventh Semester

BISLM421	Research methodology	4 hours	100	4
BISLM422	Comparative Study of Information Systems	4 hours	100	4
BISLM423	Practical classification	2 hours	100	4
BISLM424	Practical cataloguing	2 hours	100	4
	Class attendance and participation		5	
				1
	Viva voce/Presentation		20	
		Sub total:	425	17

Fourth Year: Eighth Semester

BISLM 425	Applied statistics	4 hours	100	4
BISLM 426	Information networking and resources sharing	4 hours	100	4
BISLM 427	Analysis and design of information systems	4 hours	100	4
BISLM 428	Internship in libraries and information institutions		100	4
	Class attendance and participation		5	
				1
	Viva voce/Presentation		20	
		Sub total:	425	17
	Grand total:		3000	120

Analysis of the Syllabuses

Before assessing the appropriateness of any syllabus, it is necessary to examine what contents it intended to fulfill first. Only when the nature and purpose of librarianship have been defined, and the abilities, qualities, knowledge and skills required practicing it identified, can one sensibly consider how they might be developed, inculcated or learnt (Line, 2007). All the courses may be categorized in

three broad areas according to the course contents: i) Core courses, ii) Information technology related courses, iii) Non library related courses. The first two syllabuses were for three-year and the rest two were for four-year duration. The summary of all the four syllabuses introduced since the inception of honors program in 1987-88, can be summarized chronologically as follows:

Table 3: Chronological summary of all the syllabuses

	First syllabus		Second syllabus		Third syllabus		Fourth syllabus	
Session	1987 – 88		1994 – 95		1997 – 98		2006 - 07	
Board Areas	No. of courses	Full marks	No. of courses	Full marks	No. of courses	Full marks	No. of courses	Full marks
Core courses	05	350 (26.92%)	13	975 (65%)	11	800 (40%)	15	1500 (50%)
IT related courses	01	70 (5.38%)	01	50 (3.33%)	06	475 (23.75%)	05	500 (16.67)
Non LIS courses	06	420 (32.31%)	06	300 (20%)	08	575 (28.75%)	05	500 (16.67)
Comprehensive	1	50 (3.85%)	------	------	------	------	------	------
Internship	1	25 (1.92%)	1	25 (1.67%)	------	------	01	100 (3.33%)
Viva Voce	------	25 (1.92%)	------	50 (3.33%)	------	50 (2.5)	-	160 (5.33%)
Practical	------	------	2	50 (3.33%)	2	50 (2.5%)	02	200 (6.67%)
Tutorial	------	120* (9.23%)	------	50 (3.33%)	------	50 (2.5%)	------	------
In-course	------	240* (18.46%)	------	------	------	------	------	------
Class attendance and presentation	------	------	------	------	------	------	------	40 (1.33%)
Total marks	14	1300	23	1500	27	2000	28	3000

* Considered as part of respective course. Percentages of total marks are shown within bracket

The above table indicates that the first syllabus offered 14 courses that become 28

courses in the fourth syllabus, which is just double of the first one. None but only the first syllabus included the comprehensive test of 50 marks. No marks were assigned for practical examinations in the first syllabus. Class attendance and presentation were incorporated only in the fourth syllabus bearing 40 marks.

Total Marks Allotment

The first syllabus offered full marks of 1300. It became more than double and reached 3000 marks in the fourth syllabus. In the meantime, the second and third syllabuses offered full marks of 1500 and 2000 respectively and their increasing rate was very reasonable, while the full marks dramatically increased in the fourth syllabus than the third one.

Figure 1: Total marks offered in different syllabuses

	1987-88	1994-95	1997-98	2006-07
Full Marks	1300	1500	2000	3000

Consequently, distinctions of full marks have direct impact on the marks allotted for a year. In all the cases, there is a higher shape in each year than the previous one.
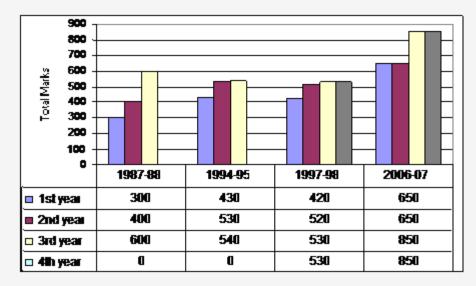
Figure 2: Year wise allotment of total marks

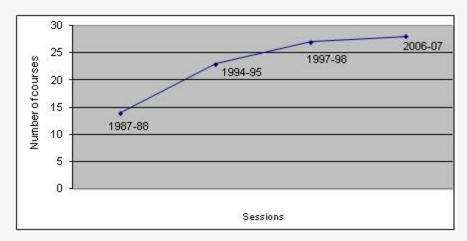|	1987-88	1994-95	1997-98	2006-07
1st year	300	430	420	650
2nd year	400	530	520	650
3rd year	600	540	530	850
4th year	0	0	530	850

The mode also stayed alive in between syllabuses except with a little bit of fluctuation in the first and third syllabuses. The fourth syllabus assigned 650 marks for first and second year each and 850 marks for third and fourth year each.

Number of Courses

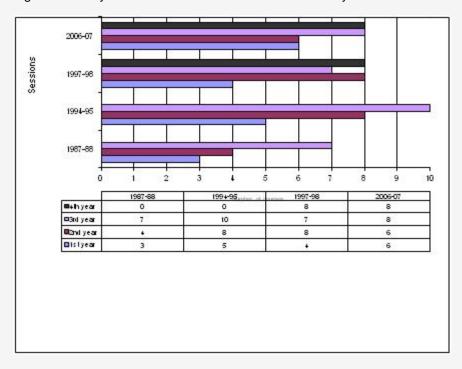The opening of honours program was done with 14 courses in 1987-88 session. It

jumped to 22 courses after seven years when the integrated course was introduced by the second syllabus in 1993-94. After that the number of courses increased slowly but surely in the third and fourth syllabus at 27 and 28 respectively.

Figure 3: Number of courses offered in different syllabuses

To keep pace with the ever-increasing number of courses in each syllabus, the number of courses in each year taught has increased too. Ten courses offered in the third year of the syllabus of 1994-95 is the highest number in a year among all the syllabuses.

Figure 4: Yearly number of courses offered in different syllabuses

	1987-88	1994-95	1997-98	2006-07
4th year	0	0	8	8
3rd year	7	10	7	8
2nd year	4	8	8	6
1st year	3	5	4	6

The last syllabus offered six courses for the first two years each and eight courses for the rest years each.

Core Courses

Core courses are indispensable for any discipline. Traditional thinking about the core curriculum places great emphasis on all the syllabuses. More stress have been given on historical development of books and libraries to modern concepts of librarianship, effective use of information institutions, evolution of own discipline, building library collection, library and information center, management of

information sources, reference services, bibliography, indexing, abstracting, documentation, classification and cataloguing (theory), comparative librarianship, etc. are taught in most of the syllabuses as core course contents.

Comparatively, the last one incorporated some new issues like information marketing, awareness about copyright law and censorship, records and archives management, information retrieval and dissemination, and emphasize has been given on these topics. It is found that the topics like research and analytical skills, modern library management, development of basic communication skills, organizing skills; preservation and conservation skills, service skills for special population, library planning, library public relation were neglected in broad scale.

Table 4: Core courses offered in different syllabuses

Syllabus	No. of total courses	No. of core courses	% of core courses	Full marks for core courses	Total marks in the syllabus	% of core course marks
First (1987-88)	14	5	35.71 %	500	1300	38.46 %
Second (1994-95)	23	13	56.52%	975	1500	65 %
Third (1997-98)	27	11	40.74 %	800	2000	40 %
Fourth (2006-07)	28	15	53.57 %	1500	3000	50 %

Initially BA (honors) program was prepared with five core courses. The number of courses noticeably increased to 13 in second syllabus. It declines to 11 in the third syllabus but rose to 15 in the fourth syllabus. In the syllabus of 1994-95, the highest 65% of marks were allotted for core courses where others did not exceed more than 50%.

Information Technology Related Courses

In the first and second syllabus, only one IT-related course was offered. The course covered only 7.69% and 3.33% of total marks respectively. However, the involvement of IT increased and reached at 23.75% in the third syllabus but moderately decreased in the following syllabus by 7.08%. This is not a cheering feature at all, while curricula should reshaped in order to accommodate the rising needs for knowing and handling new technologies.

Table 5: Information technology related course offered in different syllabuses

Syllabus	No. of total courses	No. of IT related courses	Percentage of IT related courses	Total marks in the syllabus	Full marks for IT related courses	Percentage of IT related marks
First (1987-88)	14	1	7.14 %	1300	100	7.69 %
Second (1994-	23	1	4.35 %	1500	50	3.33 %

95)						
Third (1997-98)	27	6	22.22 %	2000	475	23.75 %
Fourth (2006-07)	28	5	17.86 %	3000	500	16.67 %

However, still now no provision has been made, so that the students can learn at least one library software in their four-year period. IT related courses were based on theory only, which has no implication without any practical application and data manipulation and retrieval. As a result, the inconsistencies remain in the syllabus. Though in the last syllabus, 500 marks were allocated for IT related courses, practical exam related to IT has not been assigned. To learn IT, theories are never adequate. Moreover, there is little or no use of learning practical in IT classes, If there is no provisions of evaluating what the students have learnt. As a nature, students give emphasis on those courses where there is an examination; otherwise, they give less priority to those.

Non Library Related Courses

Necessity of non library related courses are important for subject background and crucial for the knowledge development of any discipline. In all the syllabuses, more emphasis has been laid on it. However, the inclusions of Bengali and English languages in third and fourth syllabuses are not appropriate in bachelor level where the course contents cover only grammar of the respective language. This is eventually overlapping of education as the students have already learned grammar for 7 to 8 years before entering in university level. Writing, editing and publishing course contents are good enough if the whole course contents cover in that semester. The rising issue 'web publishing' and/or 'digital documentation' has been ignored in the syllabus.

Table 6: Non library related courses offered in different syllabuses

Syllabus	No. of Total courses	No. of non library related courses	% of non library related courses	Total marks in the syllabus	Full marks for non library related courses	% of non library related marks
First (1987-88)	14	6	42.86 %	1300	420	32.31 %
Second (1994-95)	23	6	26.09%	1500	300	20 %
Third (1997-98)	27	8	29.63 %	2000	575	28.75 %
Fourth (2006-07)	28	5	17.86 %	3000	500	16.67 %

In the first, and third syllabuses 32.31% and 28.75% of total marks were allotted for non library related courses, while 20% and 16.67% for the second and fourth syllabuses respectively. The highest numbers of non library related courses were offered in the third syllabus and the lowest numbers were in the fourth syllabus.

Practical Courses

The library education require practical courses on classification and cataloguing at the bachelor level. The first syllabus did not include these.

Table 7: Practical courses offered in different syllabuses

Syllabus	Total marks in bachelor level	Full marks for practical	% of practical marks
First (1987-88)	1300	----------	----------
Second (1994-95)	1500	50	3.33%
Third (1997-98)	2000	50	2.50%
Fourth (2006-07)	3000	200	6.67%

The second and third syllabuses tried to cover the laps in case of practical courses. Only 50 marks were allotted and that was divided in two courses e.g. classification practical and cataloguing practical equally. The fourth syllabus has, however, incorporated two full-fledged courses bearing 100 marks each, named practical classification, and practical cataloguing.

Comprehensive Test

The comprehensive test helps the students to revise their courses before entering their professional career. The comprehensive test was assigned only in the first syllabus bearing 50 marks. After that in all the syllabuses, this specification was never included. The bachelor level consumes four years, which is the major duration in education process. In the last year, or before entering the professional career, none can apply his/her expertise in the courses that they have learned during first to third year. Students give more importance on their last year or last semester courses only. Therefore, incorporating comprehensive test helps the students to look back of their previous courses studied by themselves.

Internship

The internship may be one of the few opportunities, students have to test their skills, attitudes being developed and discussed in their academic program. An internship that integrates the student as an operating member of a management staff is a critical component of library education. The internship provides students with work experiences to give them a realistic exposure to an organizational or bureaucratic environment of a library. These experiences enhance the students' awareness of the internal dynamics of a library and the values and attitudes of employees toward both their clientele and their administrative superiors.

Twenty-five marks were allotted for internship during 1987-88 to 1996-97

sessions. Nevertheless, from 1997-98 to 2005-06 sessions, the provision of internship was ignored in the syllabus. In this long period of eight years, it was a total loss for the students of that time who missed to be trained practically within their own syllabus from different libraries. However, the Department understood the loss and incorporated a full course of internship bearing 100 marks from the session 2006-07. The Incorporation of internship in the last syllabus will give students the opportunity to be aware of their obligations as professionals to the public.

Viva voce

The process of finishing a year or a semester involves final examination followed by an oral examination called viva voce (the literal Latin translation is "live voice"). The "viva", as it is commonly known, is an in-depth discussion into all aspects of the courses taught in that year/semester which typically lasts between 05 –15 minutes for each candidate. A specially convened examination committee, with both internal and external examiners conduct it.

In the first syllabus, there was a provision to face viva-voce of 25 marks only in third year. Both in second and third syllabuses, 50 marks were assigned for viva-voce, which were split in more or less equally in all the years. The viva-voce was followed by each year's final examinations and accumulated with total marks. From the new syllabus of 2006-07, twenty marks in each semester, in total 160 marks in eight semesters were assigned for viva-voce/presentation. In the fourth syllabus, incorporation of more marks in viva-voce is definitely a positive step for the students.

Tutorial

Twenty marks for tutorial and ten marks for in-course examinations were incorporated within the 100 marks in each course of the first syllabus. In the second and third syllabus the tutorial marks were not integrated with each course. In both the syllabuses, total marks for tutorial were 50, and that were split in more or less equally in all the years. The tutorial marks were specified in each year in addition to course marks. All the students of that session were divided in small groups like 10-15 students under a supervisor and they have to sit in regular classes at least once a week. These students were allowed to discuss all of their course problems, and sometimes go for group assignments. The supervisor closely monitors and evaluates the individual performance and gives marks against their performances. This tutorial has been transformed in the new shape as class attendance and participation in the fourth syllabus, where 5 marks are assigned for each semester. Respective course teachers provide marks out of 5; averages of the marks are added. The fourth syllabus has short falls for tutorial marks regarding both in marks allotted and the way of evaluation against that marks. Actually, this is not a fruitful modification.

Evaluation Methods

The students are usually not given weekly/fortnightly/monthly/bi-monthly assignments to write which can be incorporated with their grand total marks. In the first three syllabuses, the evaluation of students was done by formal final examinations. Sometimes there was viva-voce after the final examinations also. The fourth syllabus introduced two-class tests of 10 marks each, 5 marks for class attendance and participation, and the semester final examinations of 75 marks for each 100 marks course.

Duration of Classes and Examinations

All the classes irrespective of core courses, IT related courses, non library related courses, practical and tutorial classes duration is fifty minutes only. This duration is never enough at bachelor level. As per rules, all the 100 marks syllabus of a course has to be covered with at least 60 class lectures where 24 lectures are for 50 marks courses in a year. In semester system, 60 classes are to be taken for each 100 marks within 15 weeks. Examination duration for 50 marks is 2 hours, and 4 hours for more than 50 marks. Only practical examinations were one and half-hours in second and third syllabuses. The last syllabus has increased marks of each practical examination to 100 and time to two hours.

Grading/Result System

From the first to third syllabuses, the grading system was in numerical form only. There was a provision of obtaining results by class category. First class was determined by 60% of total marks, while 45%, 36% and 33% for second class, third class and pass degree respectively. Less than 25% marks in any course were not added with total marks obtained. New grading system has been introduced with the new syllabus as illustrated below:

Numerical grades		Letter grades	Grade point	Remarks
			(Full unit courses)	(one-fourth unit courses)
80 & above	=	A+	4.00	1.00
75 to below 80	=	A	3.75	0.94
70 to below 75	=	A-	3.50	0.88
65 to below 70	=	B+	3.25	0.81
60 to below 65	=	B	3.00	0.75
55 to below 60	=	B-	2.75	0.69
50 to below 55	=	C+	2.50	0.63
45 to below 50	=	C	2.25	0.56
40 to below 45	=	D	2.00	0.50
Less than 40	=	F	0.00	0.00
Incomplete (Does not take an exam)	=	I	0.00	0.00
Withdrawn (Does not attend any class and take any exam)	=	W	0.00	0.00

List of Recommended Works

In all the syllabuses, the list of recommended works prescribed for each course has not included adequate bibliographical details. In some cases, therefore, only the author and title are available but the edition, place, publisher, year of publication and necessary pagination are not given. Full bibliographical citations like title, subtitle, author/editor, edition, place, publisher, year of publication, pagination should be mentioned for each text and reference book. Latest edition books should be prescribed. At the same time, it is very important to ensure the availability of the prescribed materials in the university library. The Department may take initiatives to scan (within copyright) rare and/or costly books' chapters or article from print journal or e-journals, and store those in the internal e-depository of the faculty or university. Students can get access through their individual ID and password in the e-depository.

Discussion

The second syllabus took 10 years time to appear but remained only three years. The third syllabus stayed for nine years. The fourth syllabus started with the 2006-07 session. Introducing or upgrading of the syllabuses has been done due to specific factors only. Like, the first syllabus was introduced due to adoption of honors course, the second one was designed for integrated honors course, the third one came out due to induction of four-year bachelor degree, and the last one was designed for introducing semester system. The Department has never conducted any study to determine the needs of the country's libraries and information centers for the qualification of personnel required to staff such institutions as well as development of the syllabuses as per true need. None of the syllabuses mentioned the mission and/or the purpose of library education programs. It was not indicated specific aims and objectives of any offered courses. Each course objectives, learning outcome of each unit or course has not been set in any syllabuses. Therefore, it is clear that none of the syllabus has appeared based on practical professional need of library and information centers of the country.

Analysis of course contents of the last twenty-three years reveals that these concentrate on training personnel to manage a library by providing in-depth knowledge of traditional library practices. Undergraduate students are provided with an introductory or basic level knowledge of traditional library practices. There is no option to be specialized of social science, natural science, medical, engineering, agriculture, literature and humanities. The syllabuses were strenuous in areas in the following order priority: history of books and libraries, bibliography and reference, abstracting and indexing, building library collection, cataloging and classification (theory & practice), documentation and information retrieval, archives management, library networking and resources sharing, etc. In most of the cases the course contents were remain same and only the course title got an aesthetic change. The reviews of the syllabus documents reveal that it is a mere cosmetic change. Nevertheless, what is being practiced in most libraries is not reflected in the course contents. The revolution in ICT has considerably changed both the education of information professionals and the information profession. The enrichment and growth of microcomputers and their decreasing prices have made them an attractive option for Bangladesh. However, these changes have not reflected in the syllabuses.

Day-by-day, services are differing from library to library though there are definitely some elements common to all types of libraries. Functions of national, academic, public or special libraries are being at variance. Nevertheless, no such provision has been made in the syllabuses to be specialized in any area rather all are trained in traditional librarianship. Insufficient library education programs create hindrance in the production of necessary professional manpower required for the development of libraries and librarianship in the country. Now a days, traditional courses are not that much effective in real life library management. Library education needs specialization in any system of library e.g.: academic, public,

national or special. one student should specialize in one system, so he/she can utilize the specialized knowledge in his/her practical life and prove him/her worthy to that system rather being jack of all systems but master of none.

IT related courses were included from the first syllabus and the number of courses increased gradually. Yet the courses remain only in theory. Practical examinations on IT related courses have not yet been introduced. Syllabuses had to be reshaped in order to accommodate the rising needs of knowing and handling new technologies with practical experiences and applications. Several curricula in Europe and the USA added many courses in ICT and are gradually moving from 'pure' library science to the hybrid field of information management, which draws its philosophy from both library science and information systems. One of the main factors for this transition was the great development of ICT (Guy, 2007, Abrizah, et al. 2009). Eight Asian countries are offering independent digital library courses through their academic institutions, namely India, Indonesia, China, South Korea, Malaysia, Hong Kong, Taiwan and Thailand, and four other countries are offering integrated digital library courses namely Malaysia, Singapore, Taiwan and Japan (Bakar, 2009). To cope up with the current trends of library education at least with other Asian countries, it is extremely important to introduce advance IT related and digital library courses for bachelor levels students in Bangladesh.

No library visit/tour has been integrated in any of the syllabuses. To gain practical knowledge about library activities, and report writing on observation through library visit/tour is very much essential. The knowledge era is characterized not by the lack of information but the overload of information knowledge management provides an opportunity to position oneself. The knowledge challenge to librarians to use the profession's specialist information skills to leverage the intellectual capital and collective experience of our organizations to create value and a sustainable competitive advantage in knowledge based economy (Nicolson, 1998). New graduates need to be skilled in information technology, industry or subject knowledge, information management, human resources management, managerial finance, information literacy, interpersonal relationship/communication, public relation, adding value to information by analysis and synthesis, teamwork, change management, sharing and collaborating. Reflection of the afforested skills has not been accommodated in the contents of all the syllabuses until now.

Recommendations

New library graduates are facing challenges in the real world of library activities where special libraries, private school, college and university libraries are demanding skills and efficiency in their respective fields. They need basic abilities – literacy and numeracy, organizational qualities, including vision, a questioning approach, perspective, problem-solving and analytical skills, communication and social skills, political and economical skills, a sense of service and an ability to accept uncertainty; 'professional' knowledge relevant to librarianship; and practical library skills etc. To achieve these skills syllabus should be upgraded on regular intervals. For the forthcoming syllabuses, here are some suggestions:

i) A need-based survey should be conducted to determine the current and approaching needs of the country's libraries and information institutions and required type of personnel to administer such organizations. Findings of the survey can be helpful for library educators who might be interested in developing and designing skill upgrading courses, as well as to review and develop library education syllabus.

ii) The mission of library education programs should be clearly stated in the syllabus. It should address the purpose of the educational program in the larger political, social, economical and technical context and should be consistent with the non-discriminatory values of the profession.

iii) The programs should state its goals and identify specific objectives, derived

from its goals, addressing philosophy, principles and methods of the program; areas of specialization, level of preparation provided, teaching, service and research values, and the perceived role of library services in the society.

iv) Each course offered in the syllabus should have specific aim and learning objectives that will be acquired by the student after successful completion of the course. There should be mentioned about the course structure like lectures, colloquiums, independent studies and thesis seminar etc, required course works, and assessment methods.

v) More emphasis should be given on practical application of computers and related technologies, digital libraries courses in forthcoming syllabus. At least 50% of the syllabus should be covered by the use and application of information technology to strengthen the program. Practical application of computers should be given more importance than theoretical discussion.

vi) There are many standards and protocols such as Z39.50 standard, interlibrary loan standards, circulation interchange protocol, Dublin core metadata standard etc, and the teaching of them within the syllabus is necessary.

vii) Provision should be made so that undergraduate students can learn at least one library packaged software to operate in full swing in their four-year time. At least 40% marks should be allotted for practical examinations in IT-related courses where applicable.

viii) Topics like information literacy, record management, research and analytical skills, digital library management, information and knowledge management, basic communication skills, organizing skills, Human resource management, preservation and conservation skills, service skills for special population, library planning should be incorporated in the syllabus.

ix) Much closer association with local libraries; more practical works by students, more teaching by local practicing librarians, and more experimentation by the local libraries are needed. Library visits should be effectively integrated with syllabus involving outside experts and agencies.

x) The library education is an interdisciplinary subject, finding applications in different fields like commerce, business, industries, health science, technology, social studies and so on. To meet the requirements of manpower in these field relevant specializations in the form of elective courses should be offered.

xi) There should be a provision to revise all the core courses with the comprehensive test in the last year or semester, where single question from each core course should be there. This test will help the outgoing students to rework their all core courses that they have learned other then the last semester.

xii) Methods of teaching and assessment should be designed to develop or enhance students' interpersonal relation skills, ability to work in teams, and time and task management skills. The students should also be encouraged in participating verbal discussion and presentation in the class to develop their communication skills, since much of the library professional work is done publicly and verbally.

xiii) Short writings, periodically written assignments, group assignments and substantive individual projects should be assigned on current topics to develop their writing skills as well as the understanding of the subject.

xiv) The evaluation should be done continuously through in-class tests, assignments, projects, viva-voce, class performance, class attendance and a formal final examination. To maintain quality of education and performances of faculty members, students should have the opportunity to apprise their course teachers in formal prescribed format at the end of each course.

xv) Apart from regular classroom lecture sessions, the Department should organize seminars, colloquia, and workshop for the students in a regular interval. This occasion will tighten the bond between professionals, faculty members and students. Everybody will be benefited from this and come to know about the recent developments of the subject beyond their daily works.

xvi) The lecture classes, and practical classes duration are only fifty minutes. This duration is never enough in bachelor level. Class hours should last from two to three hours, giving enough time to the students for preparing themselves in the class sessions.

xvii) Department should make sure that their graduates have some practical experience as full-time paid interns, like doctors, lawyers, business personnel and executives, before they accept professional positions of responsibility

xviii) The syllabuses should reflect the developments taking place in information technology, information resources, information access and their impact on libraries and library profession. To keep track with the rapid development in the field and changes of library and information centre's need of the country, the syllabus should be updated both in course design and content at a regular interval of at best four years. That should be a fundamental change rather than cosmetic change.

xix) Equal marks distribution to all types of courses should be avoided. Distribution of course marks for theory, IT-related courses and practical examination may be done in the following ways:

For theory courses		For IT-related courses		For practical courses	
Midterm exam 1	= 20%	Midterm exam 1	= 10%	Midterm exam 1	= 25%
Midterm exam 2	= 20%	Midterm exam 2	= 10%	Midterm exam 2	= 25%
Class test/quiz	= 10%	Class test/quiz	= 10%	Class test/quiz	= 10%
Course assignment	= 10%	Practical exam	= 40%	Final exam	= 40%
Final exam	= 40%	Final exam	= 30%		
	100%		100%		100%

xx) Journal articles should be included in the recommended works list as those reflect the current developments of a specific area more than a book. Moreover, respective course teacher should update the recommended woks list for new semester to keep him/herself updated as well to aware the students about the current trends of that course too.

The above-mentioned suggestions are not at all imaginative, far-reaching or impracticable, though the current need to economize may make some of them difficult to implement but not impossible. Some have doubtless in use already here and there. All together their impact could be considerable. It needs to be emphasized that changes in attitude and practice on the part of library practitioners are at least as necessary as on the part of educators; practitioners have generally been keener on criticizing the department than on doing something positive to improve the quality of their resources and their own works.

Conclusion

The reality of the present library education indicates that the quality improvement is essential and unavoidable, not only for its survival but also for facing the major changes and challenges of today and tomorrow. Students have to compete with other professionals to survive in the information business; they have to be equipped with a syllabus, which can make them function as competent information professionals after their graduation. Familiarity and education with IT-based resources and services, web- browsers, search engines, databases, system software, application software, extensible markup language (XML), digital documentation, e-resources, scholarly discussion lists, mailing lists, Usenet newsgroups, websites, institutional repository, digital library, etc. should be made during the undergraduate level. The new graduates should possess adequate management, marketing, technical and communication skills in order to be able to comply with the information needs of society. Information professional knowledge cannot be anything but dynamic because it is public service-oriented character and has human welfare being as its primary objective. Trained the students to use new information technology, local, national and international network services is a crying need of the hour. While there was a definite shift towards high-tech education, the parallel development of information management itself had already introduced a new dimension. Information science educators and practitioners should take a leading role, in identifying the problems, and deciding which activities at home and what support from abroad would help them.

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