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# Liberal arts and LIS paraprofessional education in the knowledge context: the cases of South Africa and Québec, Canada<sup>1</sup>

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## Abstract

*Liberal arts or general education provides students with knowledge, skills and values that enhance their ability to use their minds effectively and to participate in society with critical discretion. In many jurisdictions, however, paraprofessional education has not included any significant component of general education; programmes are, for the most part, focused on technical 'know-how', despite increasing complexities in the roles of library technicians brought about by the evolving knowledge context. Such tasks as reference services, cataloguing and systems maintenance require exactly the types of knowledge and abilities that general education fosters. Via a comparison of programmes in South Africa and Québec, Canada, this paper invites discussion on the necessity for, and the modalities of, including substantial liberal arts components within library and information science paraprofessional curricula.*

## Introduction

Liberal arts or general education develops the mind. As an educational philosophy it is intended to equip students with knowledge, skills and personal values that enhance their ability to participate effectively in society. Young (1979: 445), a strong advocate of liberal arts in library and information science (LIS) education, argued that it educates young people "to possess moral, social and aesthetic values, historical perspective and the capacity to relate effectively to others", thus making them employable as well as good citizens.

For professional librarians, undergraduate degrees have traditionally provided a liberal arts orientation which, according to Harvey (2001), gives them a "wider world view" by virtue of studying in disciplines outside LIS. In many jurisdictions, however, paraprofessional education has not included any significant component of general education. Thus LIS paraprofessionals or library technicians (as they are commonly known) largely "lack in-depth knowledge of another subject area or discipline", lack rigorous training in critical thinking and have received an education that is "primarily skills-focused" (Harvey 2001). It is generally argued that the lack of a broadly-based education is one of the primary differentiating factors between professionals and paraprofessionals. From this lack derive concerns at several levels. Over the past thirty-odd years, there has been a dramatic transformation in the role of the library technician. With the rise of the knowledge society, driven by rapidly advancing information and communication technologies (ICTs), new tasks have been created and as the roles of professional librarians have shifted, "traditional responsibilities have been transformed by the delegation of tasks to paraprofessionals" (Orme 2008: 621). Professional librarians are taking on more complex service- and management-oriented positions, while library technicians are moving into domains that were previously closed to them.

Such tasks require precisely the types of skills and abilities that general education reinforces. However, paraprofessional programmes remain, for the most part, focused on technical 'know-how', dealing with the pragmatic aspects of information management. At the same time, professional education has developed a strong focus on management, systems analysis, teaching, research and information-provision issues in response to the changing roles of librarians. Perhaps it is time to consider the reality that today the professional/paraprofessional divide falls along different lines than it did twenty years ago.

Towards this end this paper attempts to tease out issues surrounding liberal arts or general education and the paraprofessional LIS curriculum in the context of two geographic jurisdictions: Québec, Canada and South Africa. The intention is to draw lessons, if any, for each context and for LIS paraprofessional education in general. The two authors, from each of these geographic contexts, have had the good fortune of meeting and expressing their common concern for the value of liberal arts in paraprofessional LIS education. Hence this joint paper which, over and above this personal level, has value in terms of comparative methodology which offers opportunities to understand LIS-related practices as they occur in different jurisdictions. Such comparisons are useful “when the variations discovered contribute useful knowledge to the betterment of society” (Brewer 2003: 33). Further, the “best insights” from such comparisons arise from the juxtaposition of “extreme types” or “polar types” (Mills 2004: 20) as units of comparison, as proved to be the case in this instance. Before presenting the two geographic scenarios, it is important to expound on the concepts of liberal arts education, paraprofessionalism, and more specifically, LIS paraprofessionalism and the role of paraprofessionals in LIS services, including their education and training.

## Liberal arts education

Liberal arts or general education focuses on the individual’s state of being educated. Subjects are studied not for the utility of their content for practical purposes, but rather for their capacities to train the mind and cultivate the intellect (Sanderson 1993: 189). Hence this pedagogy focuses on liberal arts subjects such as grammar, mathematics, logic and rhetoric, and so forth, as well as on various discipline-based subjects. Liberal arts education provides students with the knowledge, skills and values that will prepare them for active and effective participation in society (Barker 2000: 2). Critical and logical thinking, self-reflection, and articulate expression, promoted through study of the liberal arts, serve as important life skills. In addition, such education fosters attitudes of cultural awareness, ethical awareness, valuing (awareness of values in decision-making), creativity, and autonomy. Today liberal arts or general education at the tertiary level is usually provided by means of a general bachelor’s degree in any chosen discipline and it aims to give an individual a broad base of knowledge.

## Paraprofessionals

A paraprofessional is generally understood to mean someone who works alongside the professional, usually in a technical capacity. A LIS paraprofessional, commonly referred to as a library technician or sometimes as a library assistant, traditionally has been regarded as performing a supporting role alongside the professional librarian, engaging in the application of known techniques and principles and in the organisation and supervision of systems designed by professionals. The LIS professional (librarian), on the other hand, works at the professional level engaging in high-level planning, development, design and evaluation (Tin and Al-Hawamdeh 2002: 334; Kerkham 1988: 7-8).

## Paraprofessionals in LIS services

LIS paraprofessionals are distinguished from other categories of support staff in LIS services in that most of their tasks are unique to library and information science for which they received specific training and hold a LIS qualification. The development of paraprofessionalism in LIS has been part of the evolution of LIS professionalism since the earliest days of librarianship. However, recent forces have contributed to a more pronounced emergence of the paraprofessional category of workers in LIS services, so much so that in many cases today paraprofessionals constitute the majority of workers in libraries. The application of information-handling technologies to the LIS environment has made it possible for paraprofessionals to carry out many tasks that were traditionally reserved for professionals, that is, librarians (Neal 2006; Biddiscombe 2002: 230; Tin and Al-Hawamdeh 2002: 334). For example, cataloguing has been revolutionised through the use of shared databases provided by bibliographic utilities, and acquisition of materials has been standardised and streamlined through computerisation. These areas of librarianship and information work, especially cataloguing, which once was the exclusive preserve of professionals, have become more technical with less need for the interpretive skills of a librarian. This has led to a greater need for library technicians than librarians on the technical services staff of libraries. The availability of a larger and better educated human resource pool than has previously been available to libraries, as a result of a growing paraprofessional movement, has also contributed to the prominence of paraprofessionals in the LIS work hierarchy (Congress on Professional Education (COPE, United States) 2003: 36; Kenney 2003: 18).

Advances in ICTs, particularly the World Wide Web and the Internet, have catalysed the creation of the knowledge economy which, in turn, has brought about a whole range of opportunities and excitement in the roles of information professionals. As the information needs of individuals in the knowledge economy have become more complex and demanding, so too have the roles of LIS paraprofessionals evolved into taking over the roles of professional librarians in providing basic reference services (once exclusively the responsibility of librarians), thereby “releasing the professionals to provide other value-added services to the users...” (Tin and Al-Hawamdeh 2002: 333). While traditionally librarians have been the intermediaries between users and information sources, technology now offers users novel solutions in the form of improved Web interfaces and advice on best searching methods (Biddiscombe 2002: 229-230). This empowerment of the end-user through enhanced connectivity and the concomitant “disintermediation” of the librarian (Biddiscombe 2002: 229) has led to reference and lending services, once the heart of a LIS service, now being carried out by paraprofessionals with librarians moving on to more actively participate in teaching, learning and research processes, or to “partner more directly with those they serve — be it...health care professionals, researchers, educators...” (Shipman 2004: 10).

The process has provided the opportunity for the professional librarian’s work to become more complex and sophisticated and to exhibit a service orientation rather than focusing on routine and procedures. Professional librarians now play a more active role in the management and administration of their organisations. They may become involved in analysing the specific needs of the environment in which they function, develop appropriate missions and goals to meet these needs, and manage the human resources to implement the programmes serving their constituents.

Various forces in the evolving knowledge context have thus dramatically transformed the role of the LIS paraprofessional over the past thirty years. The level of work performed by paraprofessionals has been significantly upgraded as a result of the creation of new tasks and the redistribution of old ones. This process, and the impact that it has had on the responsibilities of both the paraprofessional and the professional librarian, has resulted in a shift in the knowledge base of LIS personnel. This, in turn, has forced library schools to reassess their curricula to meet the challenges posed by the changing roles of LIS professionals. It also necessitates the development of suitable education and training programmes for LIS paraprofessionals, including the integration of liberal arts education.

## Paraprofessional LIS education

Paraprofessional skills are usually acquired through a combination of full- or part-time education and on-the-job practice and training. While the development of education and training for paraprofessionalism in LIS services is a relatively recent phenomenon (1960s and 1970s), the development of paraprofessionalism in LIS services has been part of the evolution of LIS professionalism since the late nineteenth century.

Traditionally, while librarians have been taught to understand the relationship between the task at hand and the significance of library and information work to society in general, paraprofessionals have been taught to understand how the task fits into an individual library's operation, that is, "[the] how but not why...[the] now but not then" (Muddiman 1996: 23). Professional education has a conceptual focus while paraprofessional education has an operational focus (Weihs 1997: 44). The former, due to its general nature and lifelong learning value, equips the professional to function in any LIS services context while the latter, even though it affords the individual more practical and technical expertise, has a narrower focus on LIS processes and procedures prevalent at the time.

Both professionals and paraprofessionals are critical to LIS services, particularly in view of the "weakening of the traditional job boundaries" and the redefinition of their roles (Edmond, Hillier and Price 2007: 172) in the current knowledge society. While professional education continues to develop to accommodate the new role functions of librarians, paraprofessional education has largely continued to focus on pragmatic aspects of information management. As paraprofessionals are increasingly being utilised in significantly upgraded roles, including those of lower management (or even the management of solo libraries and records centres in schools, businesses and cultural organisations), their need for the skills that, at least partially, defined professional librarianship increases. In this context liberal arts education has a significant role to play in the education of LIS paraprofessionals.

## Liberal arts in paraprofessional LIS education: South Africa

Currently in South Africa, paraprofessional LIS education and training is located in the university of technology and not in the traditional university where professional LIS education is provided. The university of technology

focuses on “the applied value of knowledge and cultivation of job-related skills” while the traditional university emphasises “high-level scientific research, within the spirit of ‘pursuing knowledge for its own sake’” (Imenda 2005: 1413). While initially up to six higher education institutions offered paraprofessional LIS education in South Africa, over the last ten to fifteen years many of these programmes have been phased out as a result of both a national and an international trend of small academic departments in higher education being closed down, mainly due to economic pressures. Today it is just the Durban University of Technology and the University of South Africa (a comprehensive university offering both traditional university and university of technology programmes) which provide paraprofessional LIS education (Raju 2005). The latter too has announced its phasing out of the LIS paraprofessional programme (LIS Schools Indaba 2006). This is indeed a pity, especially in the light of the current government’s transformation of education to redress injustices of the apartheid era. Part of the agenda of this transformation is the proliferation of public and community libraries (Ministry of Arts and Culture (South Africa) 2006) which would require the skills particularly of paraprofessional LIS personnel. As indicated earlier, paraprofessionals are increasingly being used to manage small libraries which include community libraries and branches of public library services.

A typical university of technology paraprofessional three-year LIS Diploma curriculum is presented in Appendix A. Apart from Human Studies, Literature Studies, Psychology in Organisations and the Languages, very little else is offered by way of liberal arts or general education (refer to Appendix A). Raju (2004), as part of a wider study on LIS education and training in South Africa, asked LIS academics if they thought it necessary for the university of technology (then referred to as a technikon) LIS Diploma to incorporate liberal arts education. There were mixed reactions from the 52% (34) of LIS academics in South Africa (65) who participated in the study. Six (17.6%) of the 34 respondents did not respond to the question. Ten (29.4%) indicated that it was not necessary, the main reason being that the focus in the LIS Diploma is on application and that this is a programme designed for technicians and is meant to produce paraprofessional staff who would occupy support positions in LIS services. Eighteen (52.9%) of the 34 LIS academics surveyed, however, indicated that it is necessary for the LIS Diploma to incorporate liberal arts education and, significantly, the following were some of their explanations for this response:

- Liberal arts education provides the basis of good service and enhances depth of service;

- Liberal arts education would open students' minds, thus making diplomates more employable and better human resource material;
- It is necessary for equivalence of qualifications and articulation possibilities to allow for horizontal and vertical interchange between university of technology (then technikon) and traditional university LIS programmes; and
- Some liberal arts education would be useful to provide a broader knowledge base for further education and training and for articulation to higher levels of the profession – extended liberal arts education is not necessary as the Diploma trains for paraprofessional positions.

Respondents who felt strongly that liberal arts education should be integrated into the LIS Diploma curriculum as “this is currently the main shortcoming” of the paraprofessional programme, suggested that subjects such as History, Sociology, Science and Philosophy should be incorporated. Interviews with a selected sample of LIS managers and staff in 2007-2008, conducted by the same researcher (Raju) in South Africa as part of a wider study looking into efficient and resourceful use of both professional and paraprofessional staff in LIS services, have also revealed the general sentiment that the lack of liberal arts content in the LIS Diploma curriculum is a major shortcoming affecting job functions allocated to LIS paraprofessionals, thus reiterating findings of the earlier study. While the literature and empirical evidence demonstrate the centrality of liberal arts education in the education of LIS professionals (refer to Raju 2004), there also seems to be a strong feeling that it has a significant role to play in paraprofessional LIS education as well. This is not only in terms of enhancing the quality of LIS services (particularly in view of the recent more enhanced roles being played by LIS paraprofessionals in the context of the ICT-driven knowledge society), but also in terms of providing the LIS paraprofessional with a more complete education that enhances possibilities for further education, especially into higher levels of the profession. On the issue of articulation of qualifications (between programmes and between tertiary institutions), which the post-apartheid South African National Qualifications Framework strongly supports and makes provision for (Department of Education 2007), Young (1979: 444), the Australian liberal arts champion, had already claimed, many decades ago, that liberal arts incorporation into the LIS technician programme would not only “provide a more adequate background upon which the technician could adapt to change”, but would also “allow for greater mobility to other programmes and to tertiary institutions”.

The LIS Diploma curriculum in South Africa currently falls short of a stronger presence of liberal arts content. While subjects such as Human Studies, Literature Studies, Psychology in Organisations and the Languages go some way to address the issue of liberal arts education, the first two years, at least, of the three-year paraprofessional programme should incorporate a much higher liberal arts content, as evident in the case of the paraprofessional programme in Québec, Canada.

## Liberal arts in paraprofessional LIS education: Québec, Canada

### The Québec system of post-secondary education

Within Canada the educational systems are organised and administered provincially. In the 1960s Québec, with a population centered in two large cities and several smaller ones and the rest of the population scattered primarily in rural areas in the south, introduced a system of publicly-funded colleges across the province. Known as *Collèges d'enseignement général et professionnel* (Colleges of General and Professional Education) or Cegeps, they provide essentially free access to general and technical education to all residents following graduation from grade 11. Cegeps offer a variety of professional/technical three-year (six semester) programmes, as well as two-year (four semester) pre-university programmes in the Arts, Social Sciences and Sciences. A unique aspect of the Cegep system is that pre-university and professional-programme students share a core of general education courses.

Over the years the Ministry of Education has performed periodic assessments of the various components of college education. Each assessment has reaffirmed the importance of general education in paraprofessional/technical programmes. The following excerpt from a 1993 report (Québec 1993: 17) describes the Ministry position succinctly:

Basic skills and transferable knowledge, "culture" and personal attitudes have been pinpointed as those capacities that will ultimately make the difference in an individual's personal and social life, and on the labour market. A good command of one's own language, knowledge of other languages, ordered thinking, openness to history and cultural realities, creativity, independence, a sense of responsibility, the ability to work in a team, a critical mind, a conscience, etc. are all attributes that the business community and the education system stress.

## Paraprofessional LIS education in Québec

Paraprofessional education in the LIS field is provided through a three-year programme (refer to Appendix B for an exemplar) offered at six Cegeps; the language of instruction is French in five of the Cegeps and English in the remaining one. Although individual Cegeps are given the freedom to implement requirements according to local needs, each programme must provide a curriculum that focuses on Ministerially-specified technical and general education outcomes. The programme, known as *Techniques de la documentation* (Information and Library Technologies), has undergone systematic Ministerial revisions since 1970 to ensure compatibility with technological change and work place demands.

Prior to the last major revision, the Ministry of Education conducted a series of focus groups/workshops with working technicians, representatives of the various professional associations and representatives of the Cegep programmes. Concerning general education issues, the findings were that technicians must have a basic general knowledge that touches on all disciplines, an awareness of history that allows them to understand the evolution of the different fields of human endeavour, and an understanding of how to stay up-to-date in their general knowledge. The necessity for excellent communication and problem-solving skills was also highlighted. Among the attitudes and abilities that were considered important for effective job performance were: curiosity and a desire to learn, the ability to exercise judgment, the ability to analyse and synthesise, autonomy, the ability to adapt to new situations, and respect for professional ethics (Québec 1995: 49-50, 52).

The general education courses comprise just over a quarter of the diploma requirements (660 contact hours out of 2475 total contact hours). In the Anglophone college system this translates as:

- Four courses in English composition and literature\*;
- Two courses in French composition and literature\*;
- Three courses in the Humanities, one of which focuses on ethics\*;
- Two courses in a complementary field outside the Social Science domain (since LIS is classified as a Social Science discipline by the Ministry); and
- Three courses in Physical Education. The focus in these courses is the development of a healthy lifestyle in terms of nutrition and exercise, as well as on skills acquisition.

\* Note that in the Francophone colleges, the proportion of English and French courses is reversed, and *Philosophie* is emphasised instead of the Humanities.

In addition to mandating the types of general education courses, since 1996 the Ministry requires that programmes encourage the development of specified abilities. In the John Abbott College (Ste-Anne-de-Bellevue, Québec) Information and Library Technologies (ILT) programme, these have been defined as:

- Problem-solving;
- Analysis and synthesis;
- Valuing (including professional and personal ethics);
- Communication;
- Social interaction (including the ability to work in teams); and
- Professional behaviour.

The first four of these are strongly linked to the goals of liberal arts education, as noted above. The last two are built on the preceding attitudes and abilities.

### Impact of the Québec general education model

Although on-the-job training still exists, a college diploma is usually necessary for job mobility. In Québec most job postings for paraprofessionals require a college diploma in *Techniques de la documentation*.

For some technical programmes, there exists the possibility of 10-18 month programmes that result in 'attestations of collegial studies' (AEC). An AEC has no general education component. During the last general evaluation of the *Techniques de la documentation* programme in 2000, there was discussion of the possibility of converting the ILT programme to an AEC, so as to attract students interested in a shorter educational period. However, after consulting with employers, it was concluded that a good general knowledge and a complete training through the acquisition of a college diploma (DEC) was necessary, and that students must 'learn to learn' and to be aware of the importance of continued learning (Collège Lionel-Groulx 2000: 37).

In the 2002 evaluation of the ILT programme at John Abbott College, employers and fieldwork supervisors were asked about abilities most valued in the work place. Near the top of the list were autonomy and adaptability (John Abbott College 2003: 6). In relation to general education, the report (John Abbott College 2003: 5) concluded that:

General education courses are considered essential to the program[me]. The nature of information management requires that both professionals and paraprofessionals (technicians) have good general knowledge and good communication skills. For example, in order to classify library materials in either of the two major classification schemes [this refers to Library of Congress Classification and Dewey Decimal Classification, the two systems used most commonly in Canada], technicians must have at least a general understanding of the various disciplines of knowledge and how they are differentiated. They must also be able to use general knowledge frameworks to answer the many different types of questions posed by people seeking information.

## Challenges and opportunities

While this paper has earlier outlined the general value of liberal arts education in the educational preparation of an individual, there are also very practical aspects to including a strong liberal arts component within a LIS programme. Paraprofessionals must learn to use classification schemes and subject heading lists drawn from a variety of sources. Their abilities to handle the subject analysis, to understand classification schemes and to make judicious choices are greatly enhanced if technicians have some knowledge of disciplines outside library and information science. It is difficult for students to develop their analytical skills in these areas when they lack the knowledge that underpins the structures used in information organisation. Similarly, abstracting, indexing and developing thesaural relationships are very challenging, since they require highly developed analytical reading skills and abilities to frame conceptual knowledge. Even descriptive copy-cataloguing is easier (and more interesting) if one has an understanding of the material that enhances decision-making. Although it can be said that paraprofessionals focus on the practical/technical aspects of information management, the fact remains that almost all library functions require good general knowledge. Myburgh (2003) cogently points out that LIS education “is no longer only technical, but must include consideration of new cognitive, social and situational processes”. Both in the classroom and on the job, the knowledge acquired through liberal arts education facilitates further knowledge and skills acquisition that allows the individual to cope with change in a rapidly evolving information environment; and thus, in Myburgh’s (2003) words, “be able to respond to new and uncharted problems”.

As important to LIS students as content acquisition, are the abilities and attitudes that are fostered through the study of the liberal arts — the development of what Sullivan and Rosin (2008: 45) refer to as ‘practical

reason': the abilities to cope with change, to exercise judgment, to problem-solve effectively, to understand their activities within the wider contexts of the LIS profession and the communities served. These abilities and attitudes aid in the acquisition of skills and knowledge within the programmes and ensure that, after paraprofessionals graduate, they will be able to adjust themselves to work-place demands, commit themselves effectively to lifelong learning and conduct themselves in a professionally responsible manner. As the second author can attest, addressing issues of ability and attitude development is a challenge, but the reward is teaching students whose progression in their ability to learn and communicate over the three years is very noticeable.

It is evident that the incorporation of a strong liberal arts component in the paraprofessional LIS curriculum, as in the case of Québec, has clear benefits for classroom engagement, for students' personal development and for the LIS work environment. Unfortunately, as in the South African case, many paraprofessional programmes throughout the world do not include a significant proportion of liberal arts education and could do well to draw from this case of best practice in Québec, Canada. This comparison also has other lessons for South Africa. In view of the enhanced roles of paraprofessionals brought about by a 'downshifting' in the LIS work hierarchy as a result of the rapidly changing information environment, it is indeed a pity that the number of LIS paraprofessional programmes have dwindled so dramatically in South Africa over the last ten to fifteen years; yet Canada enjoys a proliferation of such programmes, with the LIS work environment responding to the existence of these qualifications. The educational transformation currently taking place in South Africa requires more public and community libraries, as indicated by the Ministry of Arts and Culture and, in terms of earlier discussions, LIS paraprofessionals are well placed to run such LIS services. The closure of LIS paraprofessional programmes is clearly an issue that needs to be re-visited by the South African LIS fraternity.

A further lesson lies with the important issue of articulation (emphasised earlier) with university programmes. The lack of significant general education in the South African paraprofessional programme stifles possibilities for articulation with traditional university programmes for further education, either in LIS or in other disciplines. The Québec case of the inclusion of general education courses at the college level allows for easy articulation into university programmes, with the liberal arts prerequisites for general admission being fulfilled at the college level. Here, too lies, a lesson for South Africa and other jurisdictions in terms of the benefits of incorporating general education into paraprofessional programmes.

For Québec, the comparison undertaken in this paper highlights the richness and depth given to their LIS paraprofessional programme by the incorporation of a strong liberal arts component that enhances personal and professional development. Curriculum planners should continue to develop these aspects in response to local needs, as well as to the changing needs of a continually-evolving knowledge context.

There might be concerns (as intimated in the empirical findings in the Raju (2004) study) that the addition, or increase, of liberal arts in a paraprofessional curriculum might create library technicians with the same training as professionals and hence threaten librarians. Professional education, as outlined earlier, is moving into different realms in response to the changing information environment and it is time for paraprofessional education to follow suit. Indeed, the reality is that the LIS professional/paraprofessional divide in the current knowledge context falls along different lines than it did twenty years ago, and it is appropriate and relevant that paraprofessional education, too, should make its own paradigm shift in response to this reality.

## Conclusion and recommendations

In a context of a redefinition of the roles of LIS professionals and paraprofessionals, catalysed by the emerging knowledge society, the inclusion of a strong liberal arts component undoubtedly enriches the paraprofessional LIS curriculum and provides it with depth which ultimately benefits the individual taking the programme, the individual's future employers and society in general. The core lesson from the comparison undertaken in this paper is for paraprofessional curriculum designers, both in South Africa and in other parts of the world, to draw from this best practice and enrich their own programmes for the benefit of their students, the LIS work place and society in general, by looking at ways of integrating a strong liberal arts component into their paraprofessional curricula. Hence this comparison in paraprofessional LIS education between Québec, Canada and South Africa has served the useful purpose of (to repeat Brewer's (2003: 33) words on the value of comparative methodology) identifying "variations" that can "contribute useful knowledge to the betterment of society".

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## **APPENDIX A**

### **NATIONAL DIPLOMA: LIBRARY AND INFORMATION STUDIES**

(a three-year diploma located in a university of technology in South Africa)

#### Year 1

**Library and Information Practice I** (Various information environments and their aims and functions; the LIS profession; legislation affecting information provision.)

**Information Retrieval I** (Bibliographic control tools and processes; reference sources; OPAC searches.)

**Library and Information Technology I** (Office equipment; formats of recorded information; ergonomics and library/office safety; computer laboratory practicals.)

**User Studies I** (Importance of User Studies to the LIS worker; the reading process; reading motives, needs and interests; reader typology.)

**End-user Computing** (Computer types, hardware and software; keyboard skills; operating systems and environments; software packages; computer laboratory practicals.)

**Human Studies** (History and appreciation of art and music; orientation to science and technology; societal themes.)

**English language** (Communication theory; correspondence; oral communication; intercultural communication.)

**Afrikaans (local language spoken in many parts of South Africa)**  
(Correspondence; engaging with Afrikaans texts; basic discussion on topical issues.)

**IsiZulu or IsiXhosa or any other African language that is offered**  
(Intercultural communication; oral communication; writing skills.)

Year 2

**Library and Information Practice II** (The book trade and publishing; collection development; acquisitions procedures; serials control; library administration.)

**Library and Information Retrieval II** (Subject analysis; descriptive cataloguing; classification; subject headings; introduction to indexing, abstracting and thesaurus construction.)

**Library and Information Technology II** (General purpose application software; library specific databases; database management systems; search technology and software; networks; computer laboratory practicals.)

**User Studies II** (The adult reader; the neo-literate reader; the child as a reader; the teenage reader; library services for these various categories of readers; user education.)

**Literature Studies** (History and appreciation of: children's literature; African literature and African literature in English; English literature.)

**Psychology in Organisations** (The value and application of psychology in libraries and information centers.)

**Library Promotion** (Marketing the library; press relations and public relations programmes; library publications; material and techniques in library promotion.)

Year 3

**Information Practice III** (Introduction to readership; introduction to management techniques and financial control; introduction to research methodology.)

**User Studies III** (The community survey; the community profile; importance of user studies in collection development and material selection.)

**Information Retrieval III** (Print and electronic reference sources including the Internet; the reference process; techniques and tools in bibliographic control.)

**Library and Information Technology III** (The digital library: evolution; strategic planning; funding and costs; collection and preservation; retrieval.)

**Experiential Learning/Work Integrated Learning** (Fieldwork in a recognised library or information service; distributed over the three years as individual academic programmes require.)

## **APPENDIX B**

**Course requirements for the INFORMATION AND LIBRARY TECHNOLOGIES PROGRAMME, John Abbott College, Québec, Canada**

### Semester 1

**Profession of Documentation Technician** (Introductory course)

**Reference Work** (Basic reference service; print resources)

**Automation and Documentation I** (Word; e-mail; Windows; basic internet)

**English 1** (Composition; intro to literature – choice of classes/topics)

**French 1** (Oral and written, level depending upon placement)

**Physical Education 1** (Lifestyle, responsibilities for health and wellness – choice of classes/topics)

**Humanities 1** (World views – choice of classes/topics)

**Complementary 1** (From outside the domain of social sciences: e.g. Science, Fine arts, Languages)

### Semester 2

**Communication & Teamwork** (General skills applied to library and records management settings)

**Automation and Documentation II** (Advanced Word; Excel)

**Special Reference Sources** (Electronic resources; specialised reference services)

**English 2** (Literary genres – choice of classes/topics)

**French 2** (Oral and written, level depending upon placement)

**Physical Education 2** (Activity and skill development – choice of classes/topics)

**Humanities 2** (Knowledge; knowledge transmission, ways of knowing – choice of classes/topics)

**Complementary 2** (From outside the domain of social sciences: e.g. Science, Fine arts, Languages)

### Semester 3

**Physical Processing and Preservation** (basics for both library and archival settings; emergency preparedness)

**Cataloguing I** (Descriptive cataloging; print, electronic resources; film; continuing resources)

**Principles of Classification** (General principles; introductions to Dewey Decimal and Library of Congress Classifications; specialised classification schemes)

**Introduction to Records Management & Archives** (General principles; application of retention schemes)

**Public Relations** (Library outreach and public relations)

**English 3** (Literary themes – choice of classes/topics)

**Physical Education 3** (Active living – choice of classes/topics)

#### Semester 4

**Cataloguing II** (Main entries and added entries; cataloguing of recorded music, maps)

**Circulation** (Manual and automated systems)

**Dewey Decimal Classification**

**Indexing: Subject Headings** (Library of Congress Subject Headings; Sears Subject Headings; Canadian Subject Headings; Les vedettes-matières de Laval)

**Records Management** (creation of retention schemes & classification schemes; electronic and print documents; automated systems)

**English 4** (Discourse analysis focused on effective and ethical communication through the study of literature and culture – choice of classes/topics)

**Humanities 3** (Ethics - choice of classes/topics)

#### Semester 5

**Information Retrieval I** (Searching techniques; specialised databases)

**Acquisitions** (Print and non-print resources; serials control)

**Documents and their Producers** (Canadian publishing industry; international publishing; government documents)

**Indexing & Abstracting** (Abstracting; thesaurus development; periodical, database, book and website indexing)

**Archives** (Organisation and retrieval of archival documents; rules for archival description)

**Computerization & Documentation** (Integrated library systems; library databases)

**Document Formatting** (Desktop layout and html coding)

**Library of Congress Classification**

#### Semester 6

**Information Retrieval II** (Advanced retrieval)

**Working Environment I** (Fieldwork placement in an archives or records management situation – 105 hours)

**Working Environment II** (Fieldwork placement in a library – 105 hours)

**The Document Centre** (Special libraries; library management)

**Collection Development**

## Endnote

<sup>1</sup> Revised version of a paper presented at the World Library and Information Congress: 74<sup>th</sup> IFLA General Conference and Council, 10-14 August 2008, Québec, Canada.