

Restructuring LIS user education courses in universities of agricultural sciences: A study

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Discusses LIS course content followed by 17 universities of agricultural sciences in the country. Analyses the suitability of these courses in achieving the objectives laid down and evaluates the course content in changing context and the need for restructuring the course curricula in present context. Suggests a separate one credit course on LIS user education and a separate course on technical writing.

Introduction

Libraries and information centres of agricultural universities closely support education, research and extension activities of the universities like other traditional universities. To bring qualitative improvements in agricultural sciences education, the agricultural universities unlike the traditional universities in the country are offering a unique one credit course which is part of the curriculum to educate the students and develop their skills on use of library resources, techniques of information retrieval, use of databases and e-resources and to acquaint them with various sources of information.

As the libraries and information centres are automating their activities and with information resources becoming digitized, these courses have become even more relevant in the present times. To use the present day modern automated and electronic libraries, the users need to be educated on retrieval techniques and use of OPACS.

The main objective of LIS courses offered to the students of agricultural sciences is not only to acquaint the students on various scientific information sources, knowledge classification and retrieval techniques but also to train and develop skills and competence for searching and locating information independently. The libraries and information centres of agricultural universities are thus a step ahead of the traditional

universities and are discharging the dual functions of teaching as well administration the libraries.

User education in agricultural universities

User education had its beginning in the land grant colleges of US agriculture universities and the agricultural universities in India too followed the land grant pattern of imparting education. User education was considered important and was made part of the curricula to teach the students on use of library and its resources.

According to Fjallbrant & Malley, user education is concerned with the whole information and communication process and one part of this involves the total interaction of users with the library. This should be a continuous process starting with school and public libraries and with possibility of extension into academic and specialized library¹.

Tirth states that knowledge of how the books are classified, knowledge of basic reference sources and other various services the library can lead to quicker access to information. Without knowledge of resources of the library and how they can be used, the benefit of the library which is so essential for academic advancement, research and development cannot be realized².

Shores *et al* gave the concept of "Library College" and advocates user education as active student involvement

through commitment to the principle of full personal responsibility for his own education, goal selection, self evaluation and character development. In this learning process if the librarian undertakes to teach where particular information is available and how it could be located, he has substantially contributed towards the learning process³.

Fox emphasizes on the role of librarian in teaching about library. The role of librarians in assisting users to find information is evolving since collection becomes less important and services including teaching gain significance⁴. Monteith Report states user education as an independent study through sophisticated understanding of the library and increasing competence in its use⁵.

Although several studies on user education have been undertaken by the LIS professionals at various points of time, a few of these have studied LIS user education courses offered by the agricultural universities in India.

Tirth on readers instruction in agricultural universities states that an undergraduate finds himself bewildered when he first enters a university library, and seems overawed to find it so different from the 'library' of his school. All students either under graduates, postgraduates or research scholars should be oriented on library use and its resources through a formal instruction course on user education⁶.

Prasher states that user education program should be an essential part of educational program of colleges as followed in some of the agricultural universities of land grant pattern. Perusal of course content of 4 agricultural universities i.e., the Punjab Agricultural University, Haryana Agricultural University, GB Pant University of Agriculture and Technology (GBPUAT) and Indian Agriculture Research Institute (IARI) shows that the course content focused on both library orientation and user education and gives considerable emphasis on technical writing. There is less emphasis on search strategy and interest profiling. The author has suggested that the course should be more realistic and need based. The study further states that at no place in India the course has been designed according to the latest development in user education field nor in terms of guidelines⁷.

Studies by Singh on LIS user education courses in agricultural universities, states that attempts made by agricultural universities to devise a suitable curriculum to train students in library use and awareness on sources of information is commendable^{8,9}.

A study by Gupta and Kanujia states that formal user education course is offered to post graduate students and found that the students are satisfied with the course and become more confident and self reliant in their literature search. The courses are offered under different course names and either emphasizes on technical writing or on storage and retrieval of information. The author suggests that there is a need to organize a regular training course for faculties and scientists also, and to introduce the course in all agricultural universities in the country¹⁰.

However, all the studies so far, seem to have been conducted on a limited scale taking few agricultural universities. They do not focus on restructuring and the need for upgrading the courses as per the latest developments and trends in information management and retrieval techniques thus making the present study imperative.

Objectives of the study

The present study was undertaken with the following objectives:

1. To discuss the objectives of LIS courses followed by the agricultural universities;
2. To analyze and evaluate the course curricula in changing context; and
3. To ascertain the suitability of these courses in achieving the objectives laid down and the need for restructuring the course curricula.

Methodology

The data collected from the syllabi followed by the universities of agricultural sciences has been classified, grouped and analyzed to determine the various dimensions of the study. For the purpose of the present study, the course curricula obtained from 17 universities across the country have been analyzed.

Access to data and timely completion are important factors for the success and accomplishment of

prerecorded objectives of any investigation. Hence, keeping in view the limited time span, the present study is based on the data available in the syllabi followed by 17 universities of agricultural science and technology in the country¹¹⁻²⁷. Thirty universities were requested to send their course curricula out of which 23 responded. Out of the 23 universities it was found that six universities are not offering these courses.

Analysis and interpretation of data

Analysis of the objectives of LIS education in each of the universities, the course curricula /content and credit hours and duration of the course have been carried out.

Objectives of LIS education

It is found that the basic objective of the agricultural universities offering LIS courses to its students is to equip them with knowledge and skills to use the library and information resources effectively. Educating the students not only improves the quality of utilizing information sources but also aims to provide knowledge necessary for them to locate and select information. The following are the stated objectives by the various universities:

1. To acquaint the students with the principles, and functions of libraries, their importance in supporting the university education,
2. To educate and train the students in skills of using library catalogue and OPAC for retrieval of information,
3. To acquaint the students with various sources of information available in the libraries including e-resources,
4. To provide necessary skills in using electronic databases in the form of CD ROM/ DVD ROM and web based resources,
5. To provide knowledge of various National and International Agriculture Information Systems and Networks,
6. To acquaint with information explosion and problems associated with scientific literature, language, scatter, etc.,

7. To acquaint with classification and cataloguing system followed in the library, CAS and SDI services,
8. To provide knowledge of compiling bibliographies preparing thesis/dissertations, writing scientific reports and term papers, and
9. To acquaint with bibliographical control, knowledge of abstracting and indexing periodicals, preparation of index, etc.

It is noted that the universities offering these courses have combined the course content of library and information sciences with that of technical writing. The technical writing part provides knowledge on technical jargons used in compiling bibliographies, indexing, writing scientific references, preparing thesis, etc.,. Hence, the course content has a blend of both LIS instruction and technical writing.

The course curricula /content

The analysis of the course curricula followed by the universities of the agricultural sciences reveals that the course content has been designed keeping in view the basic idea to educate the users, i.e., the students in use of library resources, techniques of identifying, locating and accessing information sources and training them to be informed and knowledgeable.

The course content of all agricultural universities except the Rajasthan Agricultural University, Bikaner has been divided in to two parts. One part deals with the content of library and information sciences with slant to educating the users, whereas the other focuses on technical writing. The library and information science part centres around topics like types of libraries, its use and functions; library rules and ethics; knowledge classification; arrangement of books, and cataloguing system. Use of library catalogue and OPACs; sources of information; knowledge of several national and international agriculture databases; library networks, use of databases, e-mail and web resources; library services viz., CAS, SDI, indexing and abstracting etc. are also covered.

The technical writing part included in the course curricula trains the students for preparing dissertation, writing scientific references and providing knowledge of compiling bibliographies, preparing scientific reports, use

of technical jargons and abbreviations, writing foot notes, proof reading, etc.

Although the course curriculum followed by several universities of agricultural sciences has been suitably tailored to the needs of students on use of library resources, the curricula lacks uniform allocation of the course content on topics included in library and information sciences and topics of technical writing.

Annexure I reveals that the course content of G B Pant University of Agriculture Science and Technology, Sher-e-Kashmir University of Agriculture Sciences, Indian Agriculture Research Institute and Y S Parmar University of Forestry and Horticulture have given reasonable coverage to library and information science topics whereas some universities viz., Punjab Agricultural University, Sardar Krushinagar Dandiwata University of Agriculture Science and Technology, and Assam Agricultural University have emphasized more on technical writing. Rajasthan Agriculture University's course content emphasizes on library and its use with no topics on technical writing. At Kerala Agricultural University the topic "Use of Library" is a part of the course, "Research Planning and Implementation" with research areas having the major share.

Credit hours and duration of the course

The LIS course devised by the agricultural universities is of one credit hour and is offered in the first or the second semester particularly for the PG students. Only Sardar Krushinagar Dantiwada Agricultural University, and Kerala Agricultural University are offering this course for three credit hours. Some universities like CCS Haryana Agricultural University, Hisar; Dr YS Parmar University of Horticulture and Forestry, Solan; and University of Agriculture and Technology, Faizabad and Kerala Agricultural University are offering these courses to Ph.D students also. Surprisingly, the Rajasthan Agricultural University, Bikaner is offering this course to undergraduate students only. The University of Agricultural Sciences, Bangalore is offering the course to UG and PG students both. It is noted that the course has been made compulsory for all PG students. Only G B Pant University of Agriculture and Technology offers the course on optional basis. In most of the universities of agricultural sciences, the courses are graded in the

final examinations. At Assam Agricultural University, Jorhat the course is of non-gradual nature. Annexure II gives the list of the universities offering the LIS courses at UG, PG and Ph.D. levels along with the course title.

Need for restructuring the course content in present context

Although the course content followed by the universities of agricultural sciences has been suitably designed to equip the students with necessary knowledge and skills to enable them to interact with the library and use it effectively without much of staff guidance, efforts should be made by the universities to update and restructure the courses as per the need of present times. The study reveals that the course content followed by some of the universities have not been updated since long, viz; Jawaharlal Nehru Krishi Viswavidhyala, Jabalpur; CCS Haryana Agricultural University, Hisar; Rajasthan Agricultural University, Bikaner; Indira Gandhi Krishi Vishwavidhyala, Raipur and Dr Punjab Rao Deshmukh Krishi Vishwavidhalaya; Akola. These universities are yet to incorporate the application of information technology for information retrieval, use of databases, formulating search strategies, library networks web resources etc., in their course content.

Universities like the Dr. Y S Parmar University of Horticulture and Forestry; Solan, G B Pant University of Agriculture and Technology; Pantnagar, and S K University of Agriculture Sciences & Technology; Shalimar, IARI; New Delhi, Kerala Agricultural University; Trissur, and HP Krishi Vishwavidhalaya; Palampur have updated their course content to train their students on use of OPACs, databases, and imparting knowledge of national and international information systems, networking, internet, etc.

A few universities have included topics that are not relevant from users point of view. For example, Rajasthan Agricultural University, Bikaner is offering practicals on preparing catalogue cards, added entries, etc. The Indian Agriculture Research Institute (IARI) is teaching about document collection, acquisition and their technical processing, etc. Similarly Indira Gandhi Krishi Vishwavidhyala, Raipur is teaching cataloguing codes, particularly the classified catalogue code and Anglo American Cataloguing Rules. Five Laws of Library Science have been included in the course content of

Dr Punjab Rao Deshmukh University. These topics of LIS are more relevant to the students of library and information sciences than to the students who are being trained for using the library.

Some universities like University of Agricultural Sciences, Dharwad have included topics like "complexities of books and periodicals", "technically reading a book", etc. Indira Gandhi Krishi Vishwavidyalaya has included a topic relating to a study of model thesis maintained in their library. Dr Punjab Rao Deshmukh University acquaints the students on various agencies in the field of agriculture sciences and technology.

Regarding technical writing all universities except Rajasthan Agricultural University, Bikaner have included the topics - compiling bibliographies, use of scientific references and citations, preparation of thesis and scientific reports, use of Latin abbreviations, writing footnotes, proof reading, etc.,

The course curriculum followed by the 17 universities in this study show that the curriculum and content are varied which indicates a lack of standardization. While some universities emphasize more on library and information science topics, like Rajasthan Agriculture University, Bikaner others have given more coverage to technical writing viz., Panjab Agricultural University and Assam Agricultural University. Kerala Agricultural University, Trissur has emphasized more on research planning and implementation. Several universities have not updated their course curricula according to the need of present times. Hence, there is a need to restructure the course curriculum followed by the agricultural universities by including more topics on application of IT, use of web resources and online information access. It would be advisable to have one credit course completely focussed on library and information sciences and a separate course for the technical and scientific writing.

Suggestions

The course content followed by the universities should be updated and restructured from time to time keeping in view the ongoing changes in information management and retrieval resulting from the rapid developments in the field of information and communication technologies.

The course content followed by agricultural universities is not uniform. While some universities have given emphasis on LIS topics others have given more emphasis to technical writing. All universities should work together to bring about uniformity in the course content. There should be proper distribution of content in library and information sciences and technical writing. This is suggested as some of the universities either emphasizes more on library science or technical writing. The topics relating to style of writing thesis or project report in user education course needs to be reconsidered as this should be part of technical writing.

The course should be offered to post graduate and Ph.D. students who are likely to be more dependant on library resources for research work. Besides it should be made compulsory and graded in their final exams. Universities not offering these courses should make an effort to include it in their PG course programs.

The course curriculum needs to be made more realistic and need based. Contents like practical work on cataloguing and classification, cataloguing codes/rules, laws of library sciences, acquisition, document selection, technical processing etc., should be removed as these topics are not relevant from the users point of view.

Students have the right to draw maximum benefit by utilizing the library resources fully. User education courses make this possible. Efforts should be made to persuade the universities not offering these courses viz., Orissa University of Agriculture and Technology, Bidan Chandra Krishi Vishwavidyalaya, Central Agriculture University, Imphal etc., to include this as an essential part of educational programs to educate their students.

It is also suggested that a separate one credit course should be offered on information retrieval and library use. The technical writing part though important could be combined with the courses offered by language and communication department of the universities.

Conclusion

User education courses are important, particularly keeping in view today's context where there is reduced library staff interventions in the user's search for information in the digital environment. While the agricultural universities should strive to upgrade the syllabi and bring about uniformity in the courses offered,

the traditional universities should take initiatives to introduce user education courses following the example of agricultural universities in the country.

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13. Course Content "Agriculture Information System-AIS" Indian Agriculture Research Institute, New Delhi.
14. Course Content "Technical Writing and Library Use" Assam Agricultural, University, Jorhat. (Assam)
15. Course Curriculum "Biological Literature and Reference Work-501" Indira Gandhi Krishi Vishwavidyalaya, Raipur, Chatisgarh.
16. Course Content "Technical Writing and User Education TW-501" Punjab Agriculture University, Punjab
17. Syllabus "Library and Information Usage" University of Agriculture Sciences, Krishinagar Dharward, Karnataka.
18. Syllabus "Library Science and Technical writing" C C S Haryana Agriculture University Hisar. Haryana.
19. Syllabus "Literature and Technical writing-501" Himachal Pradesh Krishi Vishwavidyalaya Palampur, Himachal Pradesh
20. Syllabus "Scientific Report Writing and Use of Library -613" Dr Panjab Rao Deshmukh Krishi Vidhapeeth, Akola, Maharashtra.
21. Syllabus "Storage and Retrieval of Scientific Information" GB Pant University Of Agriculture and Technology, Pantnagar, Uttaranchal.
22. Syllabus "Introduction to Library Science" Rajasthan Agriculture University Bikaner" Rajasthan.
23. Syllabus "Use of Scientific and Technical Literature -511" Acharya Naredra Dev University of Agriculture and Technology, Faizabad, UP
24. Syllabus "Scientific and Technical Writing" Sardarkrushinagar Dantiwada Agriculture University, Sardarkrushinagar, Banaskantha, Gujarat.
25. Syllabus "Library Science and Technical Writing" S K University of Agriculture Sciences and Technology, Shalimar, Kashmir.
26. Syllabus "Use of Library-RM 610" Kerala Agriculture University, Kerala.
27. Course Content, "Utilization of Library facilities, orientation course" University of Agriculture Sciences, GKVK, Bangalore.

Annexure I

Comparative of user education course content followed in agricultural universities in India

Acharya Narendra Krishi Vidhyapeeth (Faizabad)	Assam Agriculture University (Jorhat)	C.C.S Haryana Agriculture University (Hisar)	Dr Panjab Rao Deshmukh Krishi Vidhyapeeth (Akola)	Dr. V. S Parmar University of Horticulture & Forestry (Solon)	G.B Pant University of Agriculture and Technology (Pantnagar)	H.P Krishi Viswavidyalaya (Palampur)	IARI (New Delhi)	I.G Krishi Vishwavidyalaya (Raipur)	J.N Agriculture University (Jabalpur)	Rajasthan Agriculture University (Bikaner)	University of Agriculture, Science (Dharward)	S D Dantwada Agriculture University (Banaskanta)	S K University of Agriculture Science and Technology (Shalimar)	Kerala Agriculture University	Punjab Agriculture University	University of Agriculture Sciences GKVK (Bangalore)
Role of library in university education system	Library in education	Role of services in university education	Role of library in higher education	Role of library in higher education	Role of library in higher education	Role of library in education	Role of library in society	Library types		Concept of library science	Role of library in higher education	Libraries and their uses.	Role of library in teaching & research	Use of library for collection and collation of scientific literature	Use of library for research and reference	Utilization of library facilities (orientation)
Functions of library		Organisation of university library	Function of university library services	Rules, ethics of library	Function of library - self study		Functions of library	Functions of library /utility	Introduction to various sections of library	Library organization and library rules	Function of university library	Types of libraries	Function of library	Sources of information	Sources of information	Sources of information (orientation)
Library organization		Classification & organization of library collection	Library classification & techniques used	Classification of major scheme	Library classification/ knowledge classification			Library classification schemes: DDC, UDC CC	Library Classification scheme	Library, Classification, DDC, class number	Library classification development of subjects	Arrangement of books & library materials	Introduction of classification UDC, DDC	Library organization/ classification DDC		
		Use of catalogue & Kardex	Cataloguing & entries, conflict of authorship	Retrieval of documents from catalogue	Use of catalogue, call No., book No.	Use of catalogue		Cataloguing, CCC, AACR ALA	Cataloguing system, call No.	Library cataloguing; practical	Cataloguing, main & added entries, AACR II	Use of catalogue	Cataloguing types of entries, AACR II	Use of card catalogues and OPACs		
Information Explosion, problems of language scatter	Information age	Scientific literature types			Scientific literature, Information explosion, language scatter	Scientific literature, Information explosion, language barrier	Scientific literature, fundamental categories of documents				Information explosion, Literature scatter, Barriers to information flow		Information explosion, scatter & language problem	Database search, CD ROM, Online information retrieval		
Sources of information: Primary, Secondary and Tertiary	Sources of information: Primary, Secondary and Tertiary	Sources of information: Primary, Secondary and Tertiary	Sources of scientific information	Sources of information: Primary, Secondary and Tertiary	Sources of information: Primary, Secondary and Tertiary	Information Source: Primary, Secondary, Tertiary	Sources of information: Primary, Secondary and Tertiary	Sources of information & reference tools	Information sources: Primary, Secondary, Tertiary	Sources of information: Primary, Secondary and Tertiary	Sources of information: Primary, Secondary and Tertiary		Sources of information: Primary, Secondary and Tertiary	World information Systems in agriculture: AGRIS		

	Acharya Narendev Krishi Vidhyapeeth (Faizabad)	Assam Agriculture University (Jorhat)	C.C.S Haryana Agriculture University (Hisar)	Dr Panjab Rao Deshmukh Krishi Vidhyapeeth (Akola)	Dr. Y. S Parmar University of Horticulture & Forestry (Solon)	G.B Pant University of Agriculture and Technology (Pantnagar)	H.P Krishi Viswavidyalaya (Palampur)	IARI (New Delhi)	IG Krishi Vishwidyala (Raipur)	J.N Agriculture University (Jabalpur)	Rajasthan Agriculture University (Bikaner)	University of Agriculture, Science (Dharward)	S D Dantwada Agriculture University (Banaskanta)	S K University of Agriculture Science and Technology (Shafimar)	Kerala Agriculture University	Punjab Agriculture University	University of Agriculture Sciences GKVK (Bangalore)	
Use of computer in agriculture					CD ROM Search & Online searching	Machine readable database: CD ROM, Online information retrieval	Knowledge of CD ROM Databases & search	CD ROM literature search system			Computer Handling in library, storage devices & services		IT use of CD ROM multimedia	Preparation of index cards and review articles	Preparation of index appendices and bibliography			
					Networking national, international information system, E-mail & Internet	Networks: INFLIBNET NICNET, Etc		Electronic Publishing					Networks: INFLIBNET, DELNET, ALINET and INTERNET	Writing thesis, research reports, progress reports etc.	Writing thesis: technical reports/papers: forms and style of technical writing			
Abstracting and indexing services		Bibliographic control, abstracting and indexing services	Bibliographic control, abstracting and indexing	Abstracts: definitions & types	Bibliographic control: abstracting and indexing services	Bibliographic control: abstracting and indexing services	Library tools, services, documentation	Abstracting and indexing service	Bibliographic control, abstracting & indexing			Use of reference tool, indexing	Reference citation	Proof correction, documentation techniques	Paragraph development, use of table charts, proof reading etc.			
Compilation of bibliography. Use of national & international codes	Technique of compiling bibliographies	Preparation of bibliographies		Techniques of writing bibliographical	Technique of compiling bibliographies	Technique compiling bibliographies	Document select-ion, technical processing	Compiling bibliographies	Techniques of compiling bibliography	Compilation of bibliographies	Compilation of bibliographies			Technique of compiling bibliographies				
Writing thesis and compiling abstracts, use of <i>op cit</i> , <i>ibid</i> , Footnote	Preparation of thesis, use of Latin abbreviations	Preparation of thesis, technical paper, writing footnotes, use of Latin abbreviations	Preparation of scientific report, writing research articles	Preparation of thesis/ dissertation proof reading	Preparation of dissertation/ thesis	Preparation of dissertation, use of foot notes <i>Ibid</i> , <i>Op cit</i> etc., Latin abbreviation	Scientific report writing	Studies of model thesis maintained in the library, thesis writing	Preparation of thesis and scientific manuscript			Technically reading a book, complexities of books and journal	Preparation of theses, research articles, technical reports, scientific writing, proof reading, list of abbreviations	Preparation of thesis/ dissertation, writing term papers, technical papers, proof reading, parts of research communication				

Annexure II

S.No.	Name of the university	Title of the course	UG/PG /Ph.D.	Compulsory/ Optional Compulsory	Credit Hours
1	Acharya Narendra Dev University of Agriculture and Technology, Faizabad.	Use of Scientific and Technical Literature	PG & Ph.D.	Compulsory	1 (1+0)
2	Assam Agriculture and Technological University, Jorhat	Technical writing and Library Use (TWL)	PG	Compulsory	Non credit
3	C C S Haryana Agriculture. University, Hisar	Library Science and Technical writing	PG & Ph.D.	Compulsory	1(1+0)
4	Dr. Panjab Rao Deshmukh Krishi Vidhyapeeth, Akola	Scientific Report Writing and use of Library AG Extn-613	PG	Compulsory	1 (1+0)
5	Dr Y S Parmar University of Horticulture & Forestry, Solan	Literature and Technical writing -501	PG & Ph.D.	Compulsory	1 (1+0)
6	G B Pant University of Agriculture and Technology, Pantnagar	Storage and Retrieval of Scientific Information-610	PG	Optional	1 (1+0)
7	Himachal Pradesh Krishi Vishwavidyalaya, Palampur	Literature and Technical Writing -501	PG	Compulsory	1 (1+0)
8	Indian Agriculture Research Institute, New Delhi	Agriculture Information System (AIS)	PG	Compulsory	1 (1+0)
9	Indira Gandhi Krishi Vishwavidhyalaya, Raipur	Biological Literature and Reference work	PG	Compulsory	1 (1+0)
10	Jawaharlal Nehru Krishi Vishwavidyalaya, Jabalpur	Agri Information System (AIS)	PG	Compulsory	1 (1+0)
11	Rajasthan Agriculture University, Bikaner	Library and Information Usage	UG	Compulsory	1 (1+0)
12	Sardarkrushinagar Dantiwada Agricultural University, Banaaskantha	Scientific and Technical Writing	PG	Compulsory	3 (3+0)
13	Sher-e-Kashmir University of Agriculture Sciences & Technology, Shalimar	Library Science & Technical Writing (LIB 601)	PG	Compulsory	1 (1+0)
14	University of Agricultural Sciences, Dharward	Introduction to Library Sc. (Lib-14)	PG	Compulsory	1 (1+0)
15	University of Agriculture Sciences, Bangalore	Orientation course on Utilization of Library facilities	UG & PG	As per requirement	-
16	Kerala Agriculture University, Trissur	Use of Library RM (610)	PG / UG	Compulsory	3 (2+1)
17	Panjab Agriculture University	Technical Writing & User Education (TW 501)	PG	-	2 (1+1)