SUBJECT REVIEW REPORT

DEPARTMENT OF AGRICULTURAL SYSTEMS

FACULTY OF AGRICULTURE
RAJARATA UNIVERSITY OF SRI LANKA

19th to 21st February 2007

Review Team :

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CONTENTS

1. SUBJECT REVIEW PROCESS

Subject review process evaluates the quality of education within a specific subject or discipline. It is focused on the student learning experience and on student achievements. It is designed to evaluate the quality of both undergraduate and taught postgraduate programmes. However, the responsibility for quality and standards lies within the institution itself, since it alone has the powers to control and to change existing practices.

This review of the study programme in Agricultural Systems was conducted according to the guidelines given in the Quality Assurance Handbook for Sri Lankan universities, published by the CVCD and University Grants Commission in July 2002. The Department of Agricultural Systems submitted a Self-Evaluation Report (SER) consisting of ten sections, namely: Aims, learning outcomes and programme details; Students, staff and facilities; Curriculum design, content and review; Teaching, learning and assessment methods; Quality of students in relation to recruitment, admission, student progress and achievement; The extent of student feedback; Postgraduate studies; Peer observation; Skills development; and Academic guidance and counseling.

The quality of education was reviewed according to the aims and learning outcomes given in the SER.

The following eight aspects of education were reviewed at the department level:

1. Curriculum design, content and review.
2. Teaching learning and assessment methods.
3. Quality of students including student progress and achievements.
4. Extent and use of student feedback, qualitative and quantitative.
5. Postgraduate studies.
6. Peer observations.
7. Skills development.
8. Academic guidance and counseling.

The review team visited the Department from 19th – 21st February, 2007. The agenda of the three day visit is annexed.

The evaluation of eight aspects was based on:

- Meetings held with the Dean, Head of Department, academic staff, non-academic staff, undergraduate students representing all four years.
- Observation of the Department and other facilities of the Faculty (library, computer Unit, language laboratory, lecture rooms, farm etc.).
- Observing teaching classes.
- Reviewing documents made available at the Department.

Each of the eight aspects was judged as good/satisfactory/unsatisfactory, noting the strengths, good practices and weaknesses in each. Considering the judgments of the eight aspects, an overall judgment was given as confidence/limited confidence/no confidence.

2. BRIEF HISTORY OF THE UNIVERSITY, FACULTY AND THE DEPARTMENT

The Faculty of Agriculture was established in year 2001 as one of the five Faculties of the Rajarata University of Sri Lanka (RUSL). The Faculty is located at Puliyankulama, approximately 3 km away from the main city of the North Central Province, Anuradhapura. The establishment of the Faculty was a response to the long felt need of the North Central Province where Agriculture is the main occupation of most of the people living in the

province. The Faculty of Agriculture, RUSL offers courses leading to a four year B. Sc degree in Agriculture.

The Faculty consists of three Departments namely: Department of Agricultural Systems, Department of Plant Sciences and Department of Soils and Water Resources Management. The Department of Agricultural Systems offers subjects in five major disciplines: Agricultural Economics, Agricultural Extension, Animal Husbandry, Post Harvest Technology and Agricultural Engineering. Animal Husbandry, Agricultural Economics, Post Harvest Technology, and Agricultural Extension are the majoring modules that are offered by the Department. Special attempts are made in the study program to equip undergraduates with relevant knowledge and skills with a view of producing employable graduates by introducing a Farm Practice course and an Advanced Research Project. The curriculum has been designed considering the requirement of the government as well as private sectors.

Location of the faculty is appropriate because students can get their skills and experience enhanced easily by living in a farming community for a period of four years. Furthermore, the students get an opportunity to cultivate various crops during the practical farm training course. Animal Husbandry being a popular activity in this area, students can get exposed to that too. Once the farm of the Faculty is fully developed, students will get opportunities to grow crops and raring animals. On the other hand, farming community is also benefited after establishing the Faculty at present location because it made easy for the farming community to get these farming problems solved with the assistance of the Faculty.

3. AIMS AND LEARNING OUTCOMES

3.1 Aims

Having realized the dynamism in agriculture and related technologies, the Faculty has developed an array of courses paying due attention to their theoretical and practical aspects. Furthermore, Faculty also has understood the vital role it should play in uplifting social and economic standards of the rural population of the area that depends heavily on Agriculture.

The aims of the degree are to provide the students with

- A wide range of learning opportunities for undergraduates to develop knowledge on fundamentals of Agricultural Extension, Agricultural Economics, Farm Mechanization, Animal Science and Post Harvest Technology.
- Recent advances in knowledge and techniques with their applications in the field of Agricultural Extension, Agricultural Economics, Farm Mechanization, Animal Science and Post Harvest Technology.
- An exposure to the farming community in order to give students an opportunity to understand prevailing conditions in finding solutions to problems faced by the community.
- An exposure to problems pertaining to production, selling, management, storage, facilities, etc.
- An opportunity to expose the students to a research project that would develop their research as well as personal skills.

Aforementioned characteristics of the degree program will be assured by

- Maintaining friendly relationships with other Departments.
- Supporting career development of teaching staff through peer evaluations.
- Developing necessary transferable skills through laboratory practical and field visits.
- Training students to get their practical knowledge and personal skills developed in order to meet needs of the possible employers.
- Organizing various Societies enabling students to gain knowledge and skills and to arouse their interest.
- Organizing discussions, seminars and oral examinations letting students to improve their skills in general communication and professional presentations.
- Providing supportive services to farmers and other stakeholders to solve their problems related to Agriculture.

3.2. Learning Outcomes

- Gained theoretical and practical knowledge and in the areas of Agricultural Extension, Agricultural Economics, Farm Mechanization, Animal Science and Post Harvest Technology.
- Understood how this knowledge could be applied effectively and efficiently in working alongside with the farming community for the improvements in productivity, profitability and sustainability.
- Developed a range of personal and transferable skills.
- Developed intellectual and analytical skills.
- Learnt theoretical technical and intellectual skills necessary for the exquisite and analysis of data through laboratory work and research.
- Developed technical skills and capabilities for scientific experimentation.
- Motivated group learning process towards teamwork
- Acquired knowledge and management skills in different disciplines to seek readymade employment both in public and private sectors.

On successful completion of the general programs offered during the three years, students are expected to have knowledge and thorough understanding of the range of following areas.

i. Agricultural Extension
ii. Agricultural Economics
iii. Agricultural Engineering
iv. Animal Husbandry
v. Post Harvest Technology

4. FINDINGS OF THE REVIEW TEAM

4.1. Curriculum Design, Content and Review

The degree programme is of four year duration and consists of eight semesters, viz., each academic year consisting of two semesters. The students follow a common core programme during the first 5 semesters, and select one of the several specialized programmes to follow

during the last three semesters. During the first five semesters, the Department of Agricultural Systems (DAS) offers 7 subjects to provide the required basic knowledge in Agriculture. During the last three semesters advanced modules are offered for specializing students to enhance the theoretical and practical knowledge. The last semester of the 4th year is allocated for Project and Thesis, to give an opportunity for undergraduates to apply their acquired knowledge in practical situations.

The review team is of the opinion that the new curriculum offered is of broad nature addressing most of the required aspects of the B.Sc Agriculture degree. The core courses are relevant and give the basic knowledge in Agriculture. The team noted few deficiencies in the old curriculum such as repetition of the same course material in several courses, e.g. Extension Education, Farm Management, Principles of Agricultural Economics, and presence of irrelevant courses in some advanced modules, and offering of too many (5) advanced modules by the DAS. These weaknesses of the old curriculum have been identified during recent curriculum revision conducted in 2006 with the help of the experts at a workshop. The new curriculum has reduced the credit load by removing repetitions, and detailed course outlines have been prepared with Intended Learning Outcomes (ILO), hourly breakdown and evaluation methods. It is noted with satisfaction that scientific writing has been made compulsory in every advanced module. Several noteworthy commendable aspects in the new curriculum are inclusion of English and IT as non credit core subjects, and introduction of a Vacation Training course.

Few noted shortcomings in the new curriculum are indicated below. The contents of some courses need minor revisions (ex. Introduction of Principles of Marketing before Marketing of Agricultural Produce course). Course sequencing needs to be improved. Some of the courses addressing Principles are offered even in the advanced programme. Relevant references for the courses are not included in the detailed course outlines. The team suggests improving this by including the list of recommended references for each course, and an indication of how learning outcome of each module is related with the overall learning outcome of the Degree programme. The Practical programme in Animal Sciences is in disarray although the theory component seems to be satisfactory. The DAS needs to pay due attention to improve Animal Science practical facilities urgently.

The students follow the entire course in English medium. However, a course in Computer Literacy is offered only for a period of one year. A better knowledge in computer literacy is inevitable for the enhancement of the quality of the students learning. The University has to take a significant effort on developing these soft skills, which are vital for employability. The review team is of the view that the University should consider the IT and English as a separate entity, review the syllabus of English and IT and give the students a certificate at the completion of the course, i.e. Proficiency Certificate in English. As revealed by the students during the discussion, there is a high competition among students within the Faculty to specialize in Agricultural Systems demonstrating the quality and relevance of the programme offered by the DAS. It was revealed by the students that most of the Visiting Lecturers are conducting the lectures at the tail end of the semester or in weekends. This needs to be rectified. The students complained that the Course of 4 year duration is extended beyond 5 years mainly due to shortage of senior staff. It is suggested to take possible efforts to secure the study program period not beyond 4 years.

The DAS does not have a single senior staff member (the only member is on sabbatical leave) at present. The Department should take necessary steps to rectify this inadequacy. It is suggested to take possible efforts to secure the study program period not beyond 4 years.

With regards to the curriculum, the review team noted that the present curriculum has been designed few months back, but has some oversighted deficiencies. Hence, the review team wishes to make following suggestions to be incorporated during next revision or if possible as amendments to the new curriculum.

1. The basic Chemistry course seems to be not necessary, since adequate coverage are given for students in the AL classes
2. A course on Principles of Marketing could be taught before the advanced courses such as Marketing of Agricultural Produce are given.
3. Some courses in the advanced program such as Animal Nutrition could be moved into the Core Programme
4. An Animal Physiology course could be introduced in the Animal Science Advanced program
5. A HRM (Human Resource Management) could be included as a core course
6. Advanced Economic courses could be included in the Advanced ProgrammeThe Review team has noted that even after the curriculum revision only 2 units are offered in Cropping Systems although the Department is still named as Department of Agricultural Systems. Steps should be taken to rectify this inadequate representation of the main theme of the department.

The review team notes with satisfaction barring the stated deficiencies the new curriculum offered is of broad nature addressing the most of the aspects required for a student graduating with a B.Sc Agriculture degree and has reduced the credit load during the revision carried out recently.

In relation to the Curriculum Design, Content and Review, the judgment of the team is GOOD.

4.2. Teaching, Learning and Assessment Methods

A range of teaching/learning methods are presently being used by the DAS staff. The most common method of imparting knowledge is through lectures. As indicated by the students as well as staff members, the teaching takes place in an interactive environment. This was also noted by the review team during the observation of teaching sessions. In addition, a range of more interactive teaching/learning techniques such as case studies, individual and group presentations, take home assignments, term papers, reports, tutorials, field studies and practical, etc. are being used. Most of the lectures were conducted according to a carefully prepared format. The review team observed that for each course, a series of lecture notes have been prepared for the use of the teacher and parallel sets of handouts are distributed among students. The lecturers were successful in attracting the attention of almost all students in the class. The team appreciates the techniques of teaching such as constant interaction with students adopted by some lecturers.

The DAS t is equipped with conventional teaching aids such as chalkboard, whiteboard, OHP and also with modern aids such as a multimedia. The team is of the view that, the teaching and learning environment (class room facilities) needs to be improved, and that further access to internet facilities at the DAS will enhance the quality of learning process. The team recommends facilitation of the use of modern teaching aids such as multimedia in the class rooms, and improving internet facilities to the DAS. The effective use of the newly constructed lecture theatres at earliest possible opportunity is recommended.

The review team has noted that only one equipped laboratory is available to conduct the practical classes. It is proposed either to construct new laboratories or to convert some available existing space into a fully fledged laboratory.

The review team noted with satisfaction that members of both academic and non-academic staff displayed a high level of commitment. However, the DAS has only one permanent non academic staff member, and temporary (contract!) lab attendant and a NITA trainee. The team recommends recruiting a qualified Technician or a Demonstrator.

The DAS practices both summative and formative assessment methods. The proportion of marks allocated for formative and summative components vary among courses. End semester written examination comprises of components such as MCQs, structured and essay type questions, practical, viva and presentations depending on the nature of the subject. The papers are scrutinized, moderated by the DAS staff, and double scrutinized and marked by an external expert following the departmental scrutiny and marking. In general, the question papers for each course are of comprehensive nature adequately covering the material included in the course outline.

The DAS staff supervises final year research projects of the students with or without an external co supervisor. The thesis based on the final year research project is evaluated based on the quality of the project proposal, student profile, presentation and report. Project proposal is assessed based on the following criteria:
Organization, content, presentation skills, discussion.

The criteria used to assess the student profile are as follows:
Punctuality, attitude to work, self confidence, neatness, creativity, communication skills, ability to cope with stress, interaction with others.

Final presentation is evaluated by a panel based on the criteria given below:
Organization, presentation skills, content, discussion.

Project report is assessed based on:
Style and format, content, submission on deadline.Under the new curriculum the Research Project is assigned 8 credit units instead of 20, and mark allocation will be as follows:

Project proposal 10%
Student profile 25%
Final presentation 25%
Project report 40%

The details on the criteria used to assess each of those components have not been prepared yet. The review team is of the opinion that allocation of 8 credit units instead of 20 units to the final year Research Project is a wise decision, and recommends developing and documenting criteria for assessing the components of Research Project.

In relation to the Teaching, Learning and Assessment Methods the judgment of the team is GOOD.

4.3. Quality of Students including Student Progress and Achievements

Throughout the program, various measures have been taken to ensure students' progress to achieve the intended learning outcomes of the programme. These include: monitoring

performance through continuous assessments, advising and counseling of weaker students etc. During the discussions held with the students as well as teaching sessions observed by the review team, the students were found to be less confident in communication skills in English. Therefore we recommend that the DAS as well as the Faculty has to take additional measures to improve the students' communication skills in English.

The review team finds that the drop out rate of the students enrolled at the DAS for specialization is zero, which is commendable.

At present, the student intake into the specialization programme is based on their preference. The final results of the passed out two batches indicate a low proportion of students obtaining 1st and 2nd upper classes out of the students specializing in this department. (There is no 1st class at all and only one 2nd upper class). This may be a result of considering only the student preference for specialization, without taking their performance into consideration. From next academic year the DAS plans to practice performance based scheme for selecting students. The review team is of the view that the performance based scheme is more appropriate to ensure the intake of better quality of students.

The discussions held with Department staff members and final year students revealed that all the graduates of this programme are presently employed, both in the private and public sector organizations. It was noted that the DAS maintains a record of their graduates.

In relation to the Quality of Students, Student Progress and Achievements the judgment of the team is GOOD.

4.4. Extent and Use of Student Feedback, Qualitative and Quantitative

The student feedback is collected through formal and informal methods. The DAS uses structured questionnaires to obtain student feedback on teaching of academic staff members of the department. There are established systems in the DAS to analyze the results of such questionnaires. At the end of each semester, some lecturers have received written comments regarding their teaching from students. It was evident from the documents available at the department that some members have prepared reports summarizing the results of student evaluation of teacher/course/assessments. The team finds this practice commendable.

In these evaluations the teachers have received excellent, very good, and good ratings by students in respect of several parameters. For example, preparation and organization of the course, style, content, clarity, teaching materials used and punctuality have been rated very good or good. However there is no evidence regarding the use of student feedback to improve the quality of teaching by staff members. The review team suggests introducing a system of recognition of good teachers using student feedback and other supporting documents in future.

In relation to the Extent and Use of Student Feedback the judgment of the team is GOOD.

4.5. Postgraduate Studies

The DAS has no postgraduate programme, while members of the department do not teach in postgraduate programmes. Neither do they supervise postgraduate students of other institutes. The probationary lecturers themselves are graduate students of the other postgraduate institutes in Sri Lanka and abroad. The absence of a postgraduate programme at the DAS is noted as a weakness by the review team.

In relation to the Postgraduate Studies the judgment of the team is UNSATISFACTORY.

4.6. Peer Observations

Peer observations are being practiced to some extent at formal and informal level. The teaching conducted by probationary lecturers has been observed by the Head of the Department. There is no evidence of providing continuous guidance to them on any aspects of teaching. Lack of a formal mechanism for peer observation was noted as a weakness by the review team. Unavailability of senior lecturers in the DAS has contributed to this deteriorating situation in the DAS. The review team is of the view that establishing a formal mechanism for peer observation would further help to enhance the quality of teaching.

The team recommends recruitment of at least one senior academic as soon as possible to the DAS to promote research culture, postgraduate supervision and peer evaluation in the department.

In relation to Peer Observations the judgment of the review team is SATISFACTORY.

4.7. Skills Development

As far as subject specific skills are concerned, the review team has noted that the DAS has adopted few methods to improve the skills of their students. For example, they have introduced new courses of studies which will greatly enhance the marketable skills of their graduates. They have made arrangements to improve generic skills of their students through the provision of language (English) proficiency (Language laboratory) computer training and in-service training in the institutions outside the university (Ex Post Harvest Institute of Technology, Farm Mechanization Training Centre) to enhance their employability.

There were reports of research projects of final year undergraduate students giving evidence that the students are being trained to conduct independent research studies (research projects)that enhance their research capabilities.

The team is of the view that, the DAS should organize a panel of visiting staff from various institutions to further strength students' skills in the industrial sector.

There is one subject specific student society (Animal Science). The review team opines that having subject societies helps to improve their organizational and team working skills by engaging different activities such as publishing a magazine, guest lecturers, excursions, etc.

The review team noted the presence of a computer center and language laboratory as positive points, but the inadequacy of computers (33 computers for the 299 students in the faculty) and other IT related facilities, could be an obstacle to successfully training students in the field of ICT. The review team felt that the ELTU has to be reorganized and the instructor to be trained in teaching methodology and effective use of language laboratory. It is recommended that the DAS take adequate measures to provide students more hours of computing to improve their levels of ICT literacy.

In relation to the Skills Development the judgment of the team is SATISFACTORY.

4.8. Academic Guidance and Counseling

The university appoints student counselors from all faculties. At present one permanent staff member (Probationary Lecturer) of the DAS has been appointed as a student counselor for the year. The DAS has taken limited measures to ensure effective academic guidance and

counseling, both in formal and informal ways. The students are assigned academic advisors from the first year. However, the students very rarely come for advice. Sometimes students have personal problems that could have an effect on their studies and, in such instances members of the academic staff should assist them. Measures needed to be taken to correct this situation and improve staff student interaction.

During the Research Project period, the internal supervisor (a probationary Lecturer) provides guidance for students with assistance from senior lecturers/professors from other universities Therefore, during the final year, each student has a supervisor from the DAS who has close contacts with the student's academic and personal life.

In relation to Academic Guidance and Counseling the judgment of the team is SATISFACTORY.

5. CONCLUSIONS

Based on the observations made during the study visit by the review team, the eight aspects were judged as follows:

Aspect	Judgment
Curriculum design, content and review	Good
Teaching learning and assessment methods	Good
Quality of students including student progress and achievements	Good
Extent and use of student feedback, qualitative and quantitative	Good
Postgraduate studies	Unsatisfactory
Peer observation	Satisfactory
Skills development	Satisfactory
Academic guidance and Counseling	Satisfactory

The overall judgment is suspended

6. RECOMMENDATIONS

1. It is recommended that new curriculum be further improved by including recommended reading materials, and details on assessment criteria used for final year research project evaluation.
2. Furthermore, it is recommended to improve the facilities for Animal Science practical as soon as possible, and to improve laboratory facilities of the DAS. The effective use of the newly constructed lecture theatres at earliest possible opportunity is recommended.
3. During the next curriculum revision, the following aspects need to be taken into consideration.
   a). Removal of the basic Chemistry course

b). Inclusion of a course on Principles of Marketing before advanced courses on Marketing of Agricultural Produce.

c). Moving of Animal Nutrition course to the core programme.

d). Introduction of an Animal Physiology course into Animal Science and Food Technology Advanced module.

e). Introduction of a HRM (Human Resource Management) course to the core programme.

f). Advanced Economic courses should be included in the Advanced Programme.

g). Strengthening of Cropping Systems course/inclusion of one more course on Agricultural Systems.

h). Some courses that are in Advance program such as Agrostology better to be taught in the core programme.

4. It is recommended to recruit at least one senior academic as soon as possible to promote research culture, postgraduate supervision and peer evaluation in the DAS.

5. The student intake into the specialization programme based on performance would be more appropriate to ensure the quality of the students.

6. The review team felt that the ELTU has to be reorganized and the instructor to be trained in teaching methodology and effective use of language laboratory.

7. The DAS may take adequate measures to provide students more hours of computing to improve their levels of ICT literacy.

8. It is desirable to issue separate certificates for English proficiency and Computer literacy after having proper evaluation.

9. It is suggested to make every possible effort to complete the study program within the stipulated period of 4 years.

10. It is recommended to provide computer facilities with internet connection to the academic staff individually.

7. ANNEXES

Annex 1: List of program details

Program	Duration	Year	No. of students
B. Sc. (Agriculture) Special Degree (Core program)	Five semesters	2002/2003 (A)	59
		2003/2004	46
		2004/2005	58
Total			**163**
B. Sc. (Agriculture) Special Degree (Advance program)	Three semesters	2001/2002	14
		2002/2003	31
Total			**45**

Annex 2: Details of the courses and number of credits offered by the Department of Agricultural Systems during the core program

Semester	Number of courses	Number of credit
1	4	8
2	4	8
3	4	8
4	7	15
5	3	8
Total	**22**	**47**

Annex 3: Details of the courses and number of credits offered by the Department of Agricultural Systems during the advance program

Semester	Number of courses	Number of credit
6	12	25
7	11	20
Total	**23**	**45**

Annex 4: The number of intake of students in the Faculty of Agriculture

Batch	Academic year	Number of students		Total
		Male	Female	
1st	2000/2001	10	06	**16**
2nd	2001/2002	19	08	**27**
3rd	2002/2003	24	28	**52**
4th	2002/2003(A)	25	34	**59**
5th	2003/2004	19	27	**46**
6th	2004/2005	34	24	**58**

Annex 5: The number of students specialized in the Department of Agric. Systems

Specialization area	Number of students				Percentage (%)			
	00/01	01/02	02/03	02/03(A)	00/01	01/02	02/03	02/03(A)
Agricultural Extension	N/O *	N/O *	N/O *	05	-	-	-	8.5
Agricultural Economics	04	04	15	13	25.0	14.8	28.8	22.0
Agriculture Engineering	N/O *	N/O *	N/O *	05	-	-	-	8.5
Animal Husbandry	N/O *	04	06	13	-	14.8	11.5	22.0
Post Harvest Technology	N/O *	05	10	10	-	18.5	19.2	16.9
Total	**04**	**13**	**31**	**46**	**25.0**	**48.2**	**59.6**	**78.0**

* Not Offered

Annex 6: Academic staff in the Department of Agricultural Systems

Name	Qualifications	Designation	Specialization area	Remarks
Mr. YM Wickramasinghe	B.Sc. (Agriculture) (Peradeniya) M.Sc. (Michigan) M.Sc. (North West Missouri)	Senior Lecturer	Agricultural Economics	On sabbatical leave
Ms. GAS Ginigaddara	B.Sc. (Agriculture) (Peradeniya)	Lecturer (Prob.)	Farming Systems	On study leave Reading for M.Sc.
Mr. AMJB Adikari	B.Sc. (Agriculture) (Peradeniya) M.Sc. (Animal Genetics and Breeding) (India)	Lecturer (Prob.)	Animal Science	Actg. Head of the Department
Mr. GVTV Weerasooriya	B.Sc. (Agriculture) (Ruhuna)	Lecturer (Prob.)	Agricultural Engineering	Reading for M. Phil.
Mr. PHP Prasanna	B.Sc. (Agriculture) (Peradeniya)	Lecturer (Prob.)	Post Harvest Technology	Reading for M. Phil.
Mr. RDCS Ranadheera	B.Sc. (Agriculture) (Peradeniya)	Lecturer (Prob.)	Animal Science	Reading for M. Phil.

Annex 7: Details of non academic members of the Department of Agricultural Systems

Category	No. of available cadre positions	No. of filled vacancies
Technical officer	01	-
Clerk	-	-
Lab attendant	01	01
Labour	-	01*
Field supervisor	01	01
Tractor operator	01	01
Machine operator	01	-

Annex 8: The space available in the Department of Agricultural Systems

Category	Specifications	Space (m^2)	Remarks
Office	Lecturers and temporary staff	60	In sufficient
	Labour	06	In sufficient
Head's room	Administration	08	In sufficient
Laboratory	Teaching and research	-	Not available at present
Lecture room	Teaching	-	
Seminar room		-	
Computer room		-	

Annex 9: Details of the courses offered by the Department during core program

a) Animal Science

Semester	Course Title	Lecturer In charge	Contact hours	
			Theory	Practical
1st	ASAH 1102 Principles of Animal Husbandry	RDCS	20	20
2nd	ASAA 1202 Anatomy and Physiology of farm Animals	RDCS	20	20
3rd	ASNR 2102 Non Ruminant Management	AMJB	20	20
4th	ASRM 2202 Ruminant Management	AMJB	15	30
5th	ASAR 3102 Practical Animal Production	RDCS	15	45

AMJB – Mr. A.M.J.B. Adikari
RDCS – Mr. R.D.C.S. Ranadeera

b) Agric. Engineering and Post Harvest Technology

Semester	Course Title	Lecturer In charge	Contact hours	
			Theory	Practical
1st	ASEN 1102 Principles of Agric. Engineering	GVTV	35	10
2nd	ASFP 1202 Farm Power and Machinery	GVTV	30	30
3rd	ASAT 2102 Tractor and Power Transmission	GVTV	20	20
4th	ASPH 2202 Principles of Post Harvest Tech.	PHP	15	30
5th	ASPF 3102 Practical Farm Machinery and Post Harvest Technology	TDR	15	30

GVTV – Mr. G.V.T.V. Weerasooriya
PHP – Mr. P.H.P. Prasanna
TDR – Mr. T.D. Ranatunge

c) Agricultural Economics and Agricultural Extension

Semester	Course Title	Lecturer In charge	Contact hours	
			Theory	Practical
1st	ASMI 1102 Micro-economic Theory	YMW	25	10
2nd	ASMA 1202 Macro-economic Theory	YMW	25	10
3rd	ASEX 2102 Agric. Extension	GAS	25	10
	APSE 2102 Agric. Production Economics	YMW	25	10
4th	ASAR 2202 Agric. Research Management	Visiting	25	10
	ASMK 2202 Marketing of Agric. Products	Visiting	25	10
	ASRD 2202 Rural Development	GAS	25	10
5th	ASFM 3103 Farm Management and Agric. Extension	Visiting/APS	30	30

YMW – Mr. Y.M. Wickramasinghe
GAS – Mrs. G.A.S Ginigaddara
APS – Mr. A.P.S. Fernando

d) Agricultural Systems

Semester	Course Title	Lecturer In charge	Contact hours	
			Theory	Practical
4th	ASFS 2202 Farming Systems	GAS	25	10

GAS – Mrs. G.A.S. Ginigaddara

e) Statistics and Mathematics

Semester	Course Title	Lecturer In charge	Contact hours	
			Theory	Practical
1st	ASMS 1102 Mathematics	AMK	30	-
2nd	ASST 1202 Statistical Methods	AMK	15	30
4th	ASDA 2203 Design and Analysis of Experiments	AMK	30	30

AMK – Mr. A.M.K.R. Bandara

Annex 10: Details of the courses offered during advanced program

Semester	Course	Contact hours		Lecturer In charge
		Theory	Practical	
6th Semester	ASAN 3202 Animal Nutrition	25	10	Visiting
	ASDT 3202 Dairy Technology	25	10	AMJB
	ASMS 3204 Meat, fish and egg technology	25	10	RDCS
	ASFS 3202 Food Science	15	30	Visiting
	ASFK 3202 Food Packaging	15	30	GVTV
	ASCL 3202 Post Harvest Technology of Cereals and Legumes	15	30	PHP
	ASEE 3202 Extension Education	25	10	Visiting
	ASRS 3202 Rural Sociology	25	10	Visiting
	ASES 3202 Econometrics	35	20	YMW
	ASSP 3202 Cropping Patterns and Systems	25	10	GAS
	ASAS 3202 Agro forestry Systems Mgt.	25	10	Visiting
	ASEI 3202 Electric and Instrumentation in Agriculture	15	30	NO
7th semester	ASAB 4102 Animal Breeding	25	10	AMJB
	ASAL 4102 Agrostology	25	10	GAS
	ASIF 4103 Inland Fisheries	30	30	RDCS
	ASFV 4102 Post Harvest Technology of Fruits and Vegetables	15	30	PHP
	ASAP 4102 Agricultural Project Analysis	25	10	Visiting
	ASDP 4102 Agricultural Development and policy	25	10	Visiting
	ASJM 4102 Agriculture Journalism and Media Use	25	10	Visiting

	ASMM 4102 Marketing Management and Agribusiness	25	10	Visiting
	ASSD 4103 Resource Planning for Sustainable Development	35	20	Visiting
	ASED 4102 Engineering Drawing and Workshop	15	30	NO
	ASTC 4102 Tree Crop Interaction	25	10	NO

YMW – Mr. Y.M. Wickramasinghe
GAS – Mrs. G.A.S. Ginigaddara
PHP – Mr. P.H.P. Prasanna
NO – Not offered yet

GVTV – Mr. G.V.T.V. Weerasooriya
AMJB – Mr. A.M.J.B. Adikari
RDCS – Mr. R.D.C. S. Ranadeera

Annex 11: Degree obtained by the 2000/2001 batch, Department of Agricultural Systems

Specialization module	**Number of students**	**Overall grades achieved**			
		1st class	**2nd upper**	**2nd lower**	**pass**
Agricultural Economics	04	-	01	02	01
Animal Science	Not offered				
Post Harvest Technology	Not offered				
Agricultural extension	Not offered				
Farm mechanization	Not offered				

- Total number of the student in of the batch was 16