

Self Assessment Report

Of

Department of Forestry and Range Management

3rd cycle 2010-12
(Under Graduate Program)



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Rawalpindi

Program Team

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Coordinator
Member
Member

CONTENTS

	Page
Introduction	03
Criterion 1 Program Mission, Objectives and Outcomes	05
Criterion 2 Curriculum Design and Organization	71
Criterion 3 Laboratories and Computing Facilities	77
Criterion 4 Students Support and Guidance	78
Criterion 5 Process Control	79
Criterion 6 Faculty	82
Criterion 7 Institutional Facilities	85
Criterion 8 Institutional Support	86
Summary & Conclusion	88

List of Tables

Table 1	Program Objectives Assessment	6
Table 2	Programme Outcomes and their Relationship with Objectives	7
Table 3	Courses offered during Fall 2010-11, Spring 2011, Fall 2011-12 and Spring 2012.	10
Table 4	Courses offered during Fall 2010-11, Spring 2011, Fall 2011-12 and Spring 2012	35
Table 5	Working Plan experience 2011.	65
Table 5a	Working Plan experience 2012,	66
Table 6	Present performance measure for research activities	69
Table 7	Short courses, Seminars, Workshops and conferences arranged by the program.	71
Table8	Quantitative Assessment of the Department (Last three years)	71
Table 9	Curriculum course requirement for BSc Hons	74

Table 10	Courses vs. Program Outcome	75
Table 11	Detail of Courses Representing Theoretical Background	76
Table 12	Faculty Distribution by Program Areas in FRM	82
Table 13	Results of Faculty Survey	84
Table 14	Enrollment in Different Programs from 2010-12	87

List of Figures

Fig. 1	Teacher Evaluation	8
Fig. 2 & 3	Teacher Evaluation	9
Fig. 4	Teacher Evaluation	10
Fig. 5	Student Course Evaluation	36
Fig. 6 & 7	Student Course Evaluation	37
Fig. 8	Student Course Evaluation	38
Fig. 9	Teacher`s Course Review	63
Fig. 10	Survey of Graduating Students 2011	64
Fig. 10a	Survey of Graduating Students 2012	64
Fig. 11	Affectivity of Working Plan Experience 2011-12	65
Fig. 12	Alumni Survey	67
Fig. 13	Employer`s Survey for determining students skill level	67

Annexure

Annexure 1: Detailed resume of the faculty members	91
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Introduction

Department of Forestry & Range Management

The Department of Forestry & Range Management was established in the year 2002 at the University of Arid Agriculture Rawalpindi, prior to this the subject of Forestry and Range Management was taught as a minor subject to the undergraduate students of Faculty of Crop and Food Sciences. Now the department is offering the degree of B.Sc. (Hons.) in forestry and B.Sc. (Hons.) Agriculture major in Forestry & Range Management at undergraduate level.

The department of Range Management & Forestry has initiated the academic programmes at B.Sc. (Hons) and currently has enrollment of 30 students in B.Sc. (Hons.) The department already has published 97 research papers since its establishment.

The establishment of the department of Forestry & Range Management was a new addition to the University's expanding academic programmes. The establishment of the department has a mandate of teaching and research, suggesting remedial measures to improve the problems of land degradation, with special emphasis on rangeland degradation, deforestation and proper management of natural resources of arid and semi arid regions of the country.

A new scheme of studies has been implemented as recommended by HEC under revised syllabus of Forestry undergraduate program. The courses includes core forestry, range management, biodiversity and climate change aspects. The scheme of studies is also supported by adding reference to the latest text books and journals.

The initial practical facilities were established both in the lab as well as in the field. A range forage grass, shrubs and tree nursery has been planned to be established in the research farm of UAAR at Koont Chakwal for providing practical training to the students about major forage species particularly the drought tolerant range plants. Under the HEC funded project, new infrastructure including research laboratories and field laboratory has been established in university. A fair number of latest books on the subject have also been purchased and placed in the Library for ready reference to the students. Necessary laboratory equipments (both field and lab.) related to Forestry & Range Management research activities has been purchased under the HEC project. The major equipments include the wood quality testing machine, wood seasoning chamber, wood preservation unit, wood workshop and allied laboratory equipment to support research studies on range germplasm evaluation and Forest inventory.

The current projects are focused on forest biomass and productivity estimations, above and below ground carbon stocks estimations in natural forests, nutritional quality, watershed management, forest management and carrying capacity in rangelands of Pakistan, Phytosociology and effect of fire on natural forests.

A number of seminars have also been organized to highlight the land degradation issues among various stakeholders. A consultative workshop on status implementation of NAP and UNCCD in Pakistan was organized by the University of Arid Agriculture, in collaboration with Ministry of Environment, Government of Pakistan. About fifty participants from various organizations participated in the workshop and finalized draft report to be submitted to UNCCD secretariat.

Currently three research projects are being run by the faculty of the department funded both by university and United Nation Development Programme worth Rs. 2.023 m. These projects are supposed to be completed in fall 2013.

The department is having five PhD and three non- PhD Teacher who are also enrolled in PhD both National and Foreign Universities.

Criterion 1: Program Mission, Objectives and Outcomes

The self assessment is based on a number of criteria. To meet each criterion several Standards have been established. This section describes how the standards of the Criterion 1 are met.

Standard 1-1: The program must have documented measurable objectives that support institution mission statements

Mission statement of Forestry & Range Management Department

The mission of the department is to deliver quality education and produce quality graduate in the field of Forestry, Range Management, Agro forestry, Watershed Management and Environmental forestry and forest degradation to ensure scientific management of the natural forests of the country to cope with the demand of wood at national level.

Objectives

1. To provide quality training and education in the field of Forestry and Range Management to produce educated and skilled manpower.
2. The extension of newly developed technologies in the field of Forestry & Range Management to relevant stakeholders in rain fed areas through workshops, seminars and field days. .
3. To establish linkages with national and international research institutions and with the industry for mutual benefit and progress in the field of Forestry & Rangeland Management.

Main elements of strategic plan to achieve mission and objective

- 1 Development of a sound teaching system based on the experience and vision gathered from world reviews, literature, innovations, proceedings, symposia etc. for the award of degrees.
- 2 Designing of curricula involving core subjects, elective subjects, specialized areas, internship programs and study tours.
- 3 Setting up of well equipped specialized laboratories for the students and researchers, depending upon the available resources.
- 4 Publication of scientific papers, books, manuals etc.
- 5 Implement of research projects funded by the Universities and other agencies.
- 6 Arranging field tours to impart first hand knowledge to the students about field and Forest Management Techniques.

The assessment of the program objectives through different criteria is presented in Table 1.

Table 1: Program Objective Assessment

S. #	Objective	How Measured	When Measured	Improvement Identified	Improvement made
1	To impart training and education in the field of Forestry & Range Management. To produce educated and skilled manpower	Back ground information and status of knowledge of students through previous academic qualification and students feedback	At the time of admission semester	Some basic courses to be included in the curriculum	Revision of curriculum made in year 2010 and 2011.
2	To extend newly developed technologies in the field of Forestry & Range Management. To relevant stakeholders in rainfed areas.	Through surveys, monitoring of forests, assess manpower, farmers feed back and potential farmers interaction	Continuous activity	Problematic areas being identified/ New courses to be included in curriculum, research on new problem	Approval of new curriculum integrated approaches/ research initiated on identified areas.
3	To establish linkages with national and Int. research inst.& with the industry for mutual benefit and progress in the field of F& RM.	Through visiting forestry based industries/ by collaborative projects.	Continuous activity	By visiting forest based industries.	Collaboration established/ Enhancement of knowledge and vision

Standard 1.2 : The program must have documented outcomes for graduating students. It must be documented that the outcomes support the

Program Learning Outcomes

All the students in Forestry & Range Management should possess the ability of:

1. Communication skills through presentations, oral discussions, review articles, etc.

2. Preparation of projects based upon identification of problems. and use of new analytical techniques.
3. Identification of priority problems and their solution.
4. Enhancement of knowledge and vision.
5. Scientific writing and publication of research papers.

A number of survey based on the QEC questionnaires were conducted to assess the program outcomes of the department/graduates. Program outcomes are presented in Table2.

Table 2: Program Objectives VS Program Outcomes

Program Objectives	Program Outcomes				
	Develop communication skills	Developing Research Projects	Analytical & Problem solving skill	Develop of Knowledge & vision	Development of professionalism & Research
Education	++	++	+	+++	+++
Training	++	++	+++	+++	+++
Extension of Technologies	++	++	+	+++	+
Linkages with R&D institutions	++	++	+++	+++	+++

+ = Moderately satisfactory

++ = Satisfactory

+++ = Highly satisfactory.

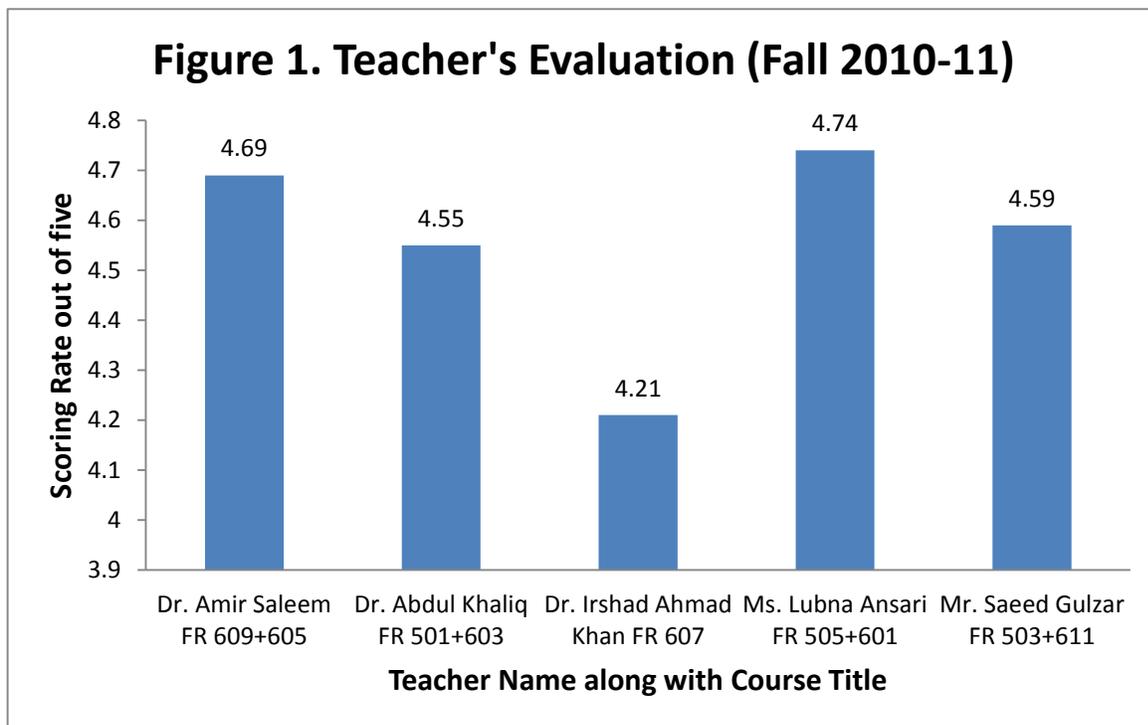
Program Assessment Results

Teacher's evaluation

There are eight teachers in the department namely:

1. Prof. Dr. Sarwat N. Mirza Professor/ DEAN
2. Dr. Irshad A. Khan, Associate Professor/ Chairman
3. Dr. Syed Moazzam Nizami, Associate Professor
4. Dr. Abdul Khaliq, Assistant Professor
5. Dr. Aamir Saleem Assistant Professor
6. Mr. Saeed Gulzar, Lecturer
7. Ms. Lubna Ansari, Lecturer (On study leave)
8. Mr. Irfan Ashraf, Lecturer (on study leave)

All the teachers are involved in teaching of different subjects in the department. They were evaluated by the students at the end of the semester in accordance with proforma-10. The scoring rate were fixed between 1-5 i-e 5 for out standing performance, 4 for very good, 3 for good, 2 for fair and 1 for poor performance. On these bases the results were compiled from aforesaid proforma-10 (For fall 2010-11 and Spring 2011 Fall 2011-12 and spring 2012 semesters). Results are graphically presented in figure 1,2,3 and 4 respectively. The overall compiled result showed that top scoring in the department is 4.85 and lowest is 4.11. The grading of the teachers are showed in Figure 1, 2, 3 and 4.



Note: Mr. Irfan Ashraf Lecturer is on Study Leave for PhD in Canada from Fall 2009 to date.

Figure 2. Teacher's Evaluation (Spring 2011)

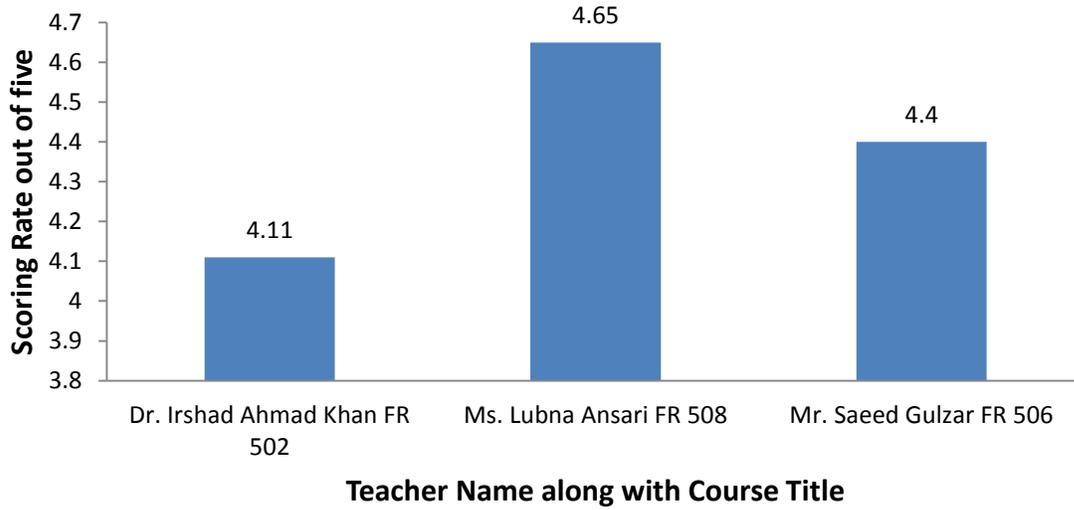
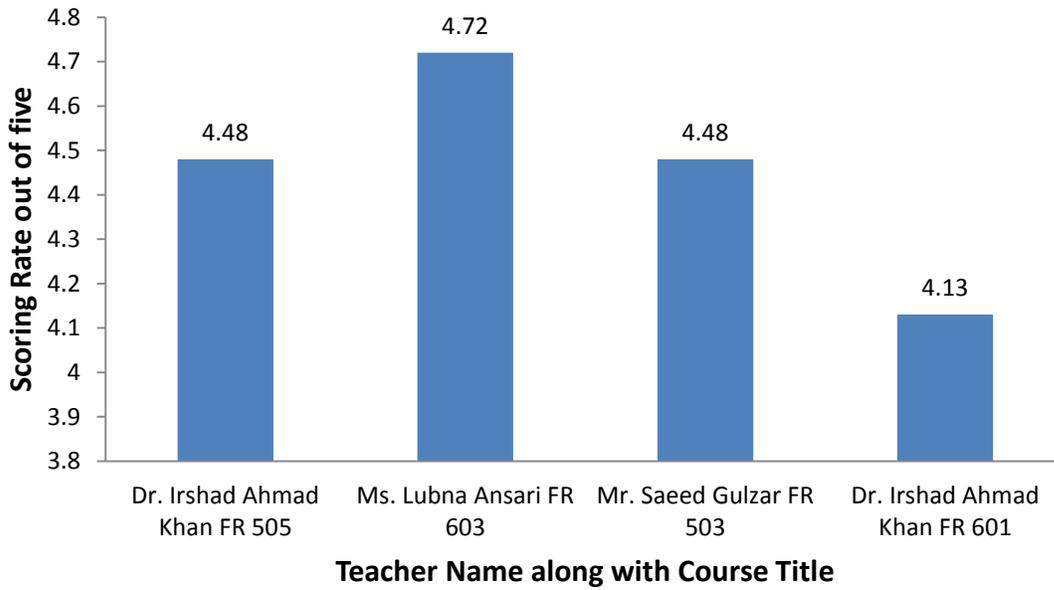


Figure 3. Teacher's Evaluation (Fall 2011-12)



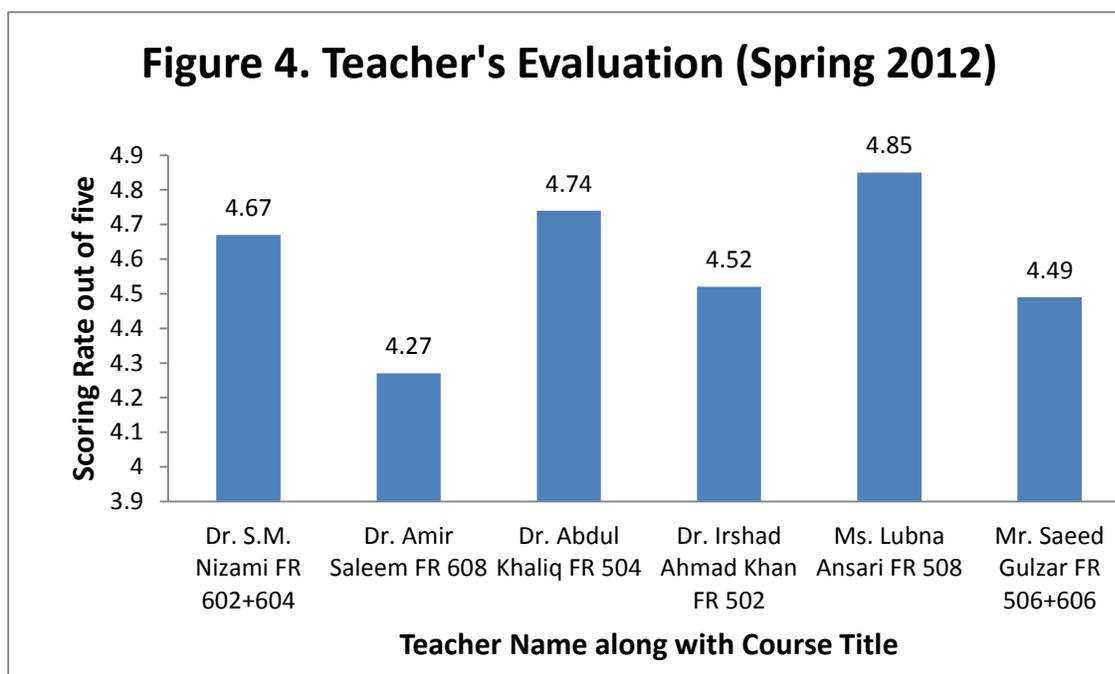


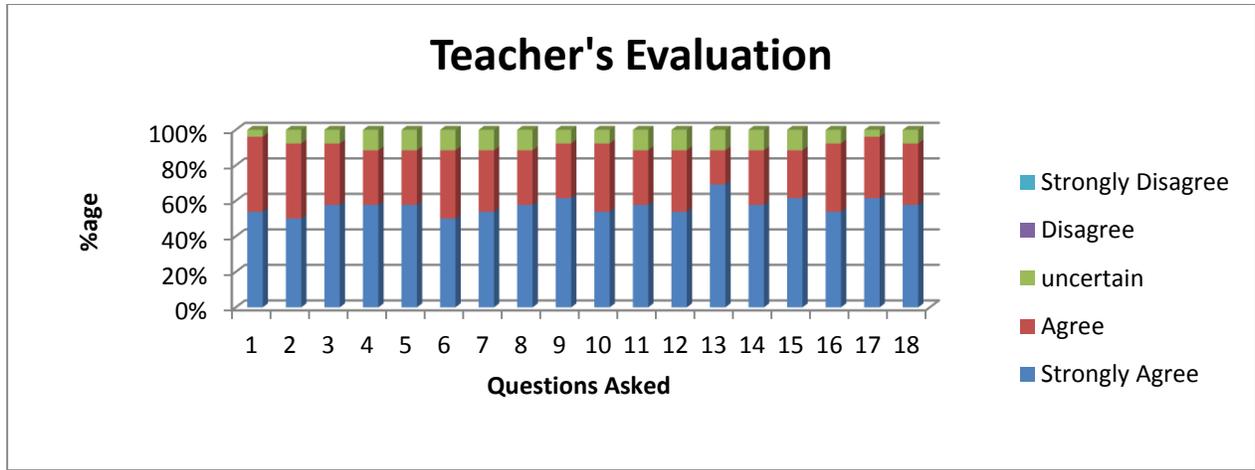
Table 3: Courses offered during Fall 2010-11, Fall 2011, Spring 2011-12 by the Department of Forestry and Range Management.

Course Title	Course Code	Teacher
Range Management	FR 505	Ms. Lubna Ansari
General Silviculture	FR 501	Dr. Abdul Khaliq
Principle of Agroforestry	FR 503	Mr. Saeed Gulzar
Project Planning and Scientific Writing	FR 609	Dr. Aamir Saleem
Range medicinal and Poisonous Plants	FR 607	Dr. Irshad Ahmad Khan
Forest Timber Science	FR 603	Dr. Abdul Khaliq
Range Improvement and Rehabilitation	FR 601	Ms. Lubna Ansari
Forest Law and policy	FR 611	Mr. Saeed Gulzar
Wildlife Management	FR 605	Dr. Aamir Saleem
Range Vegetation and Livestock Interaction	FR 508	Ms. Lubna Ansari
Range Biodiversity and Environment	FR 506	Mr. Saeed Gulzar
Forest Protection	FR 502	Dr. Irshad Ahmad Khan
Watershed Management	FR 504	Dr. Abdul Khaliq
Range Management	FR 505	Dr. Irshad Ahmad Khan
Range Improvement and Rehabilitation	FR 603	Dr. Irshad Ahmad Khan
Forest Timber Science	FR 603	Ms. Lubna Ansari
Forest Inventory and Working Plan-II	FR 604	Dr. S. M. Nizami
Forest Inventory and Working Plan-I	FR 608	Dr. S. M. Nizami
Forest Law and Policy	FR 606	Saeed Gulzar

Detail of individual performance of each teacher is obvious from the Graph given below:

Fall 2010-11. Range Management. (FR 505) Ms. Lubna Ansari

The course entitled “Range Management” was taught by Ms. Lubna Ansari and was evaluated by the students through proforma no: 10. In the following graph it is concluded that teacher is always prepared for the and demonstrate the knowledge very well.

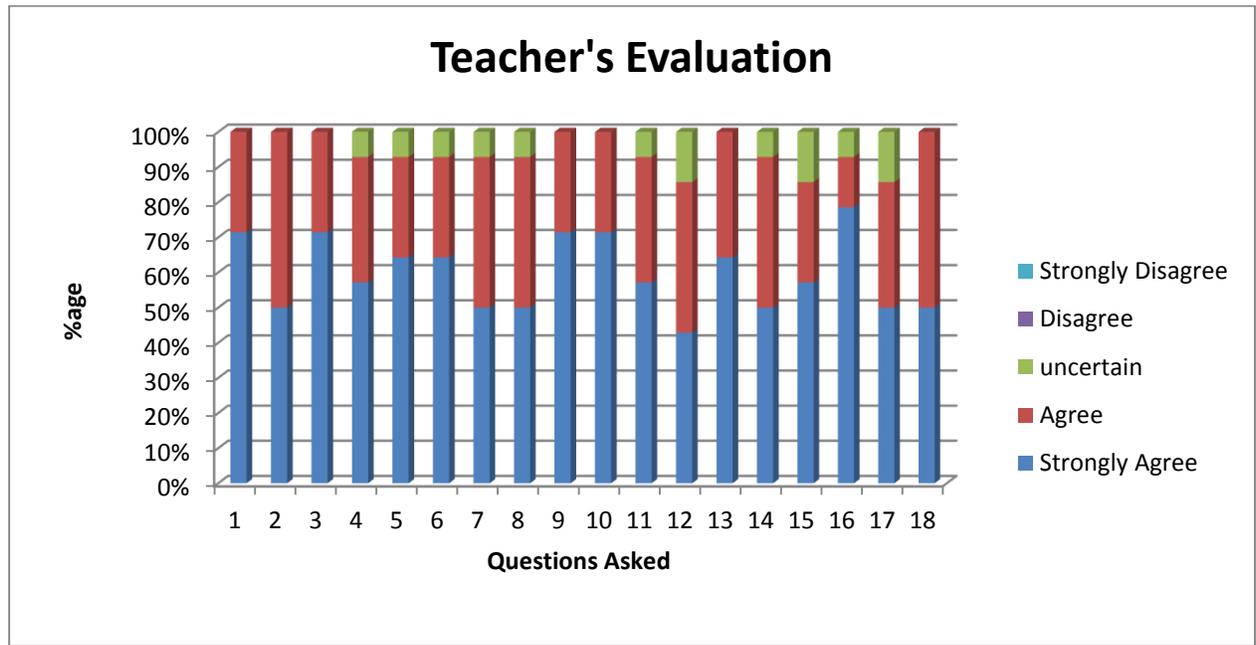


LEGEND (Questions asked)

- | | |
|------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------|
| 1. The Instructor is prepared for each class. | 2. The Instructor demonstrates knowledge of the subject |
| 3. The Instructor has completed the whole course . | 4. The Instructor provides additional material apart from text. |
| 5. The Instructor gives citations regarding current situations. With reference to Pakistani context. | 6. The Instructor communicates the subject matter effectively |
| 8. The Instructor maintains an environment that is conducive to learning. | 7. The Instructor shows respect towards students and encourages class participation. |
| 10. The Instructor leaves on time. | 9. The Instructor arrives on time. |
| 12. The Instructor returns the graded scripts. etc in a hours and for after class consultations. | 11. The Instructor is fair in examination. |
| 14. The subject matter presented in the course has increased requirements procedures and grading criteria. | 13. The Instructor was available during the specified office reasonable amount of time. |
| 16. The course integrates theoretical course concepts with presented in the course. | 15. The syllabus clearly states course objectives your knowledge of the subject. |
| 18. The course material is modern and updated. | 17. The assignments and exams covered the materials real-word applications. |

Fall 2010-11. General Silviculture. (FR 501) Dr. Abdul Khaliq

The course entitled “General Silviculture” was taught by Dr. Abdul Khaliq and was evaluated by the students through proforma no: 10. The following graph shows that teacher was always prepared and demonstrated knowledge very well.

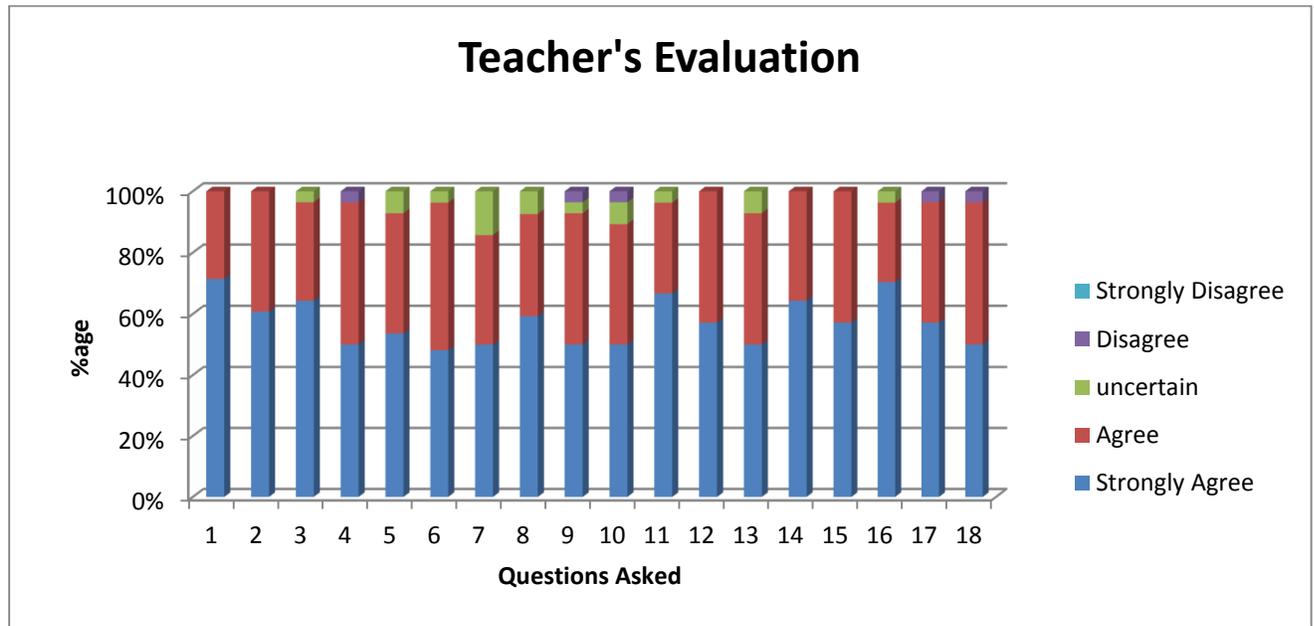


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| 16. The course integrates theoretical course concepts with presented in the course. | 15. The syllabus clearly states course objectives your knowledge of the subject. |
| 18. The course material is modern and updated. | 17. The assignments and exams covered the materials real-word applications. |

Fall 2010-11. Principles of Agroforestry. (FR 503) Mr. Saeed Gulzar

The course entitled “Principles of Agroforestry” was taught by Mr. Saeed Gulzar and was evaluated by the students through proforma no: 10. The following graph shows that teacher is mostly prepared for the class and tell things in context of Pakistan.

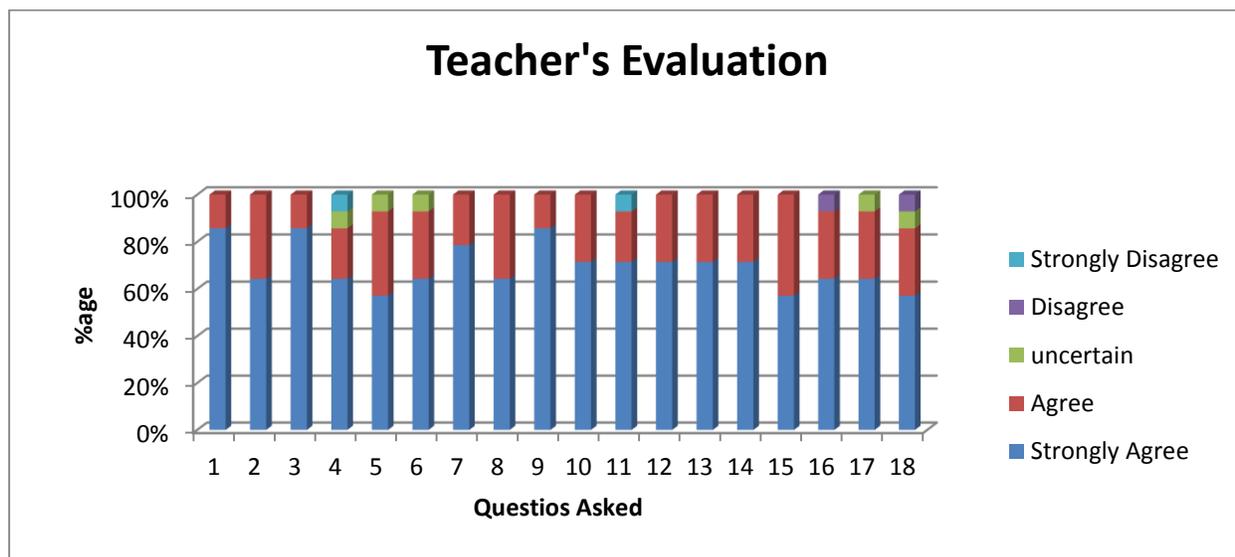


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| 16. The course integrates theoretical course concepts with presented in the course. | 15. The syllabus clearly states course objectives your knowledge of the subject. |
| 18. The course material is modern and updated. | 17. The assignments and exams covered the materials real-word applications. |

Fall 2010-11. Project Planning and Scientific Writing. (FR 609) Dr. Aamir Saleem

The course entitled “Project Planning and Scientific Writing” was taught by Dr. Aamir Saleem and was evaluated by the students through proforma no: 10. The following graph shows that teacher is mostly prepared and demonstrated knowledge very well.

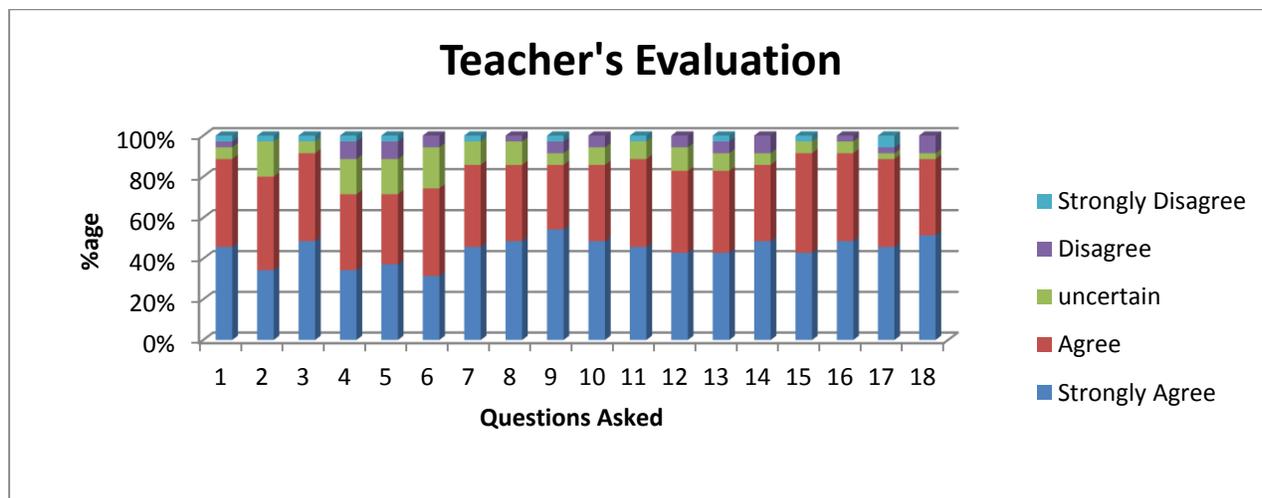


LEGEND (Questions asked)

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| 18. The course material is modern and updated. | 17. The assignments and exams covered the materials real-word applications. |

Fall 2010-11. Range Medicinal and Poisonous Plants. (FR 607) Dr. Irshad A. Khan

The course entitled “Range Medicinal and Poisonous Plants” was taught by Dr. Irshad A. Khan and was evaluated by the students through proforma no: 10. The following graph shows that teacher was always prepared and demonstrated knowledge very well. However few students reveal that teacher did not give citation according to current situation with reference to Pakistani context.

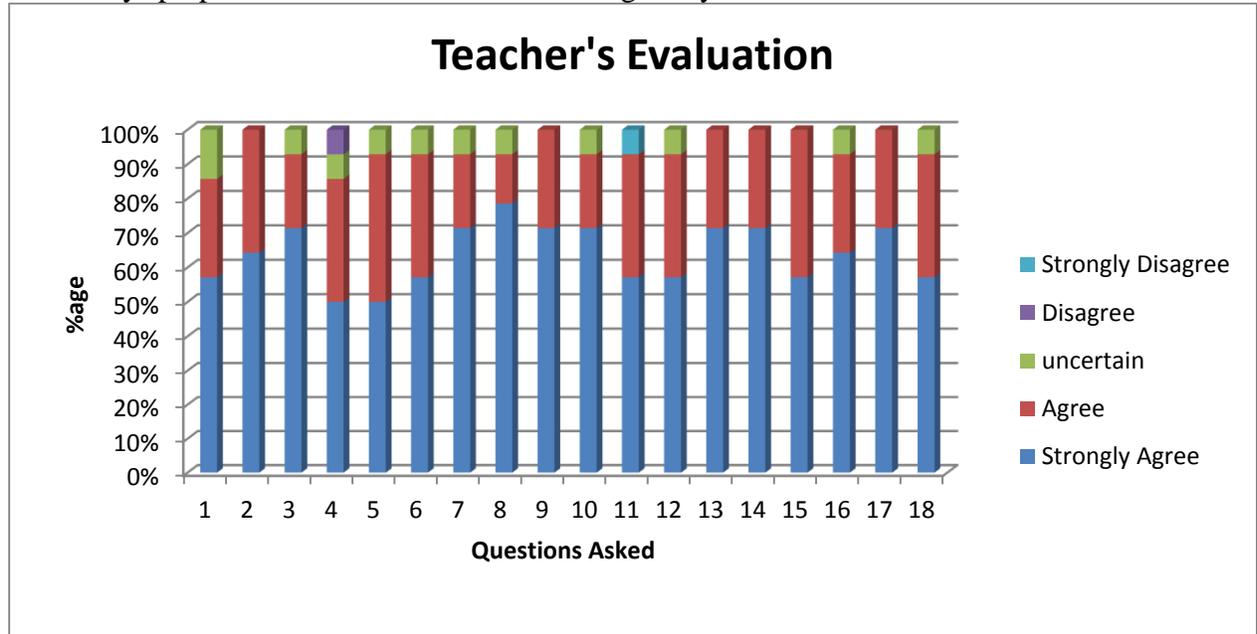


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| 18. The course material is modern and updated. | 17. The assignments and exams covered the materials real-word applications. |

Fall 2010-11. Forest Timber Science. (FR 603) Dr. Abdul Khaliq

The course entitled “Forest Timber Science” was taught by Dr. Abdul Khaliq and was evaluated by the students through proforma no: 10. The following graph shows that teacher was always prepared and demonstrated knowledge very well.

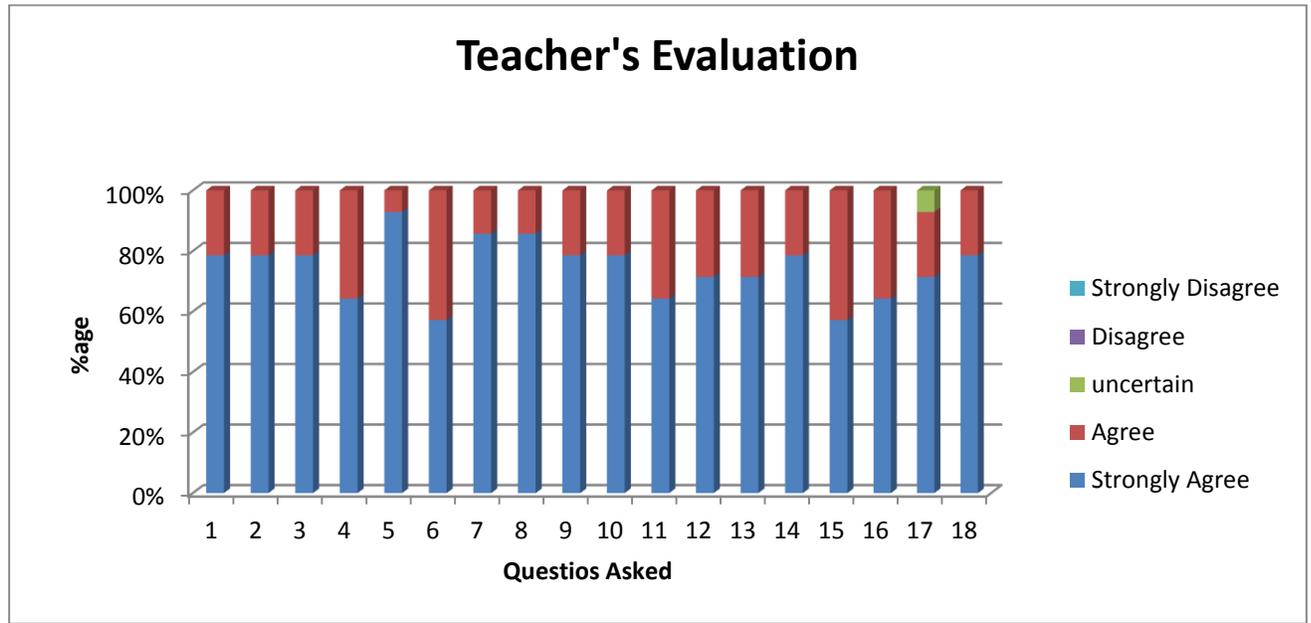


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| 18. The course material is modern and updated. | 17. The assignments and exams covered the materials real-word applications. |

Fall 2010-11. Range Improvement and Rehabilitation. (FR 601) Ms. Lubna Ansari

The course entitled “Range Improvement and Rehabilitation” was taught by Ms. Lubna Ansari and was evaluated by the students through proforma no: 10. The following graph shows that teacher was always prepared and demonstrated knowledge very well.

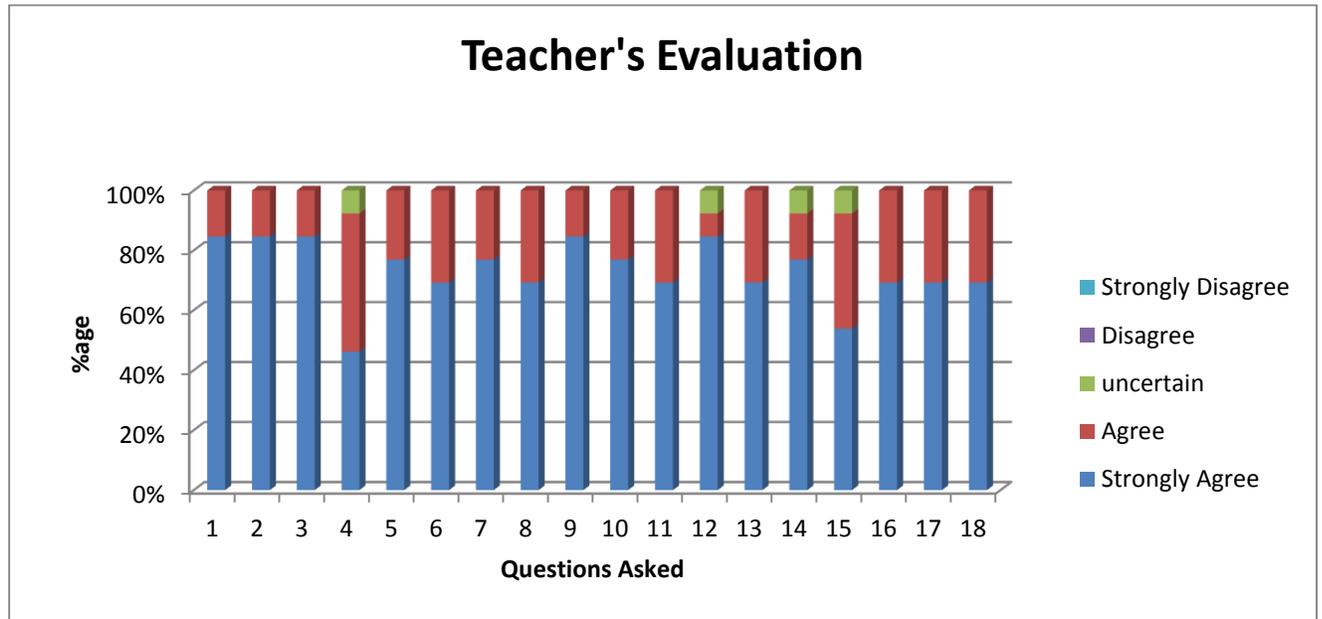


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| 16. The course integrates theoretical course concepts with presented in the course. | 15. The syllabus clearly states course objectives your knowledge of the subject. |
| 18. The course material is modern and updated. | 17. The assignments and exams covered the materials real-word applications. |

Fall 2010-11. Forest Law and Policy. (FR 611) Mr. Saeed Gulzar

The course entitled “Forest Law and Policy” was taught by Mr. Saeed Gulzar and was evaluated by the students through proforma no: 10. The following graph shows that teacher was always prepared and demonstrated knowledge very well.

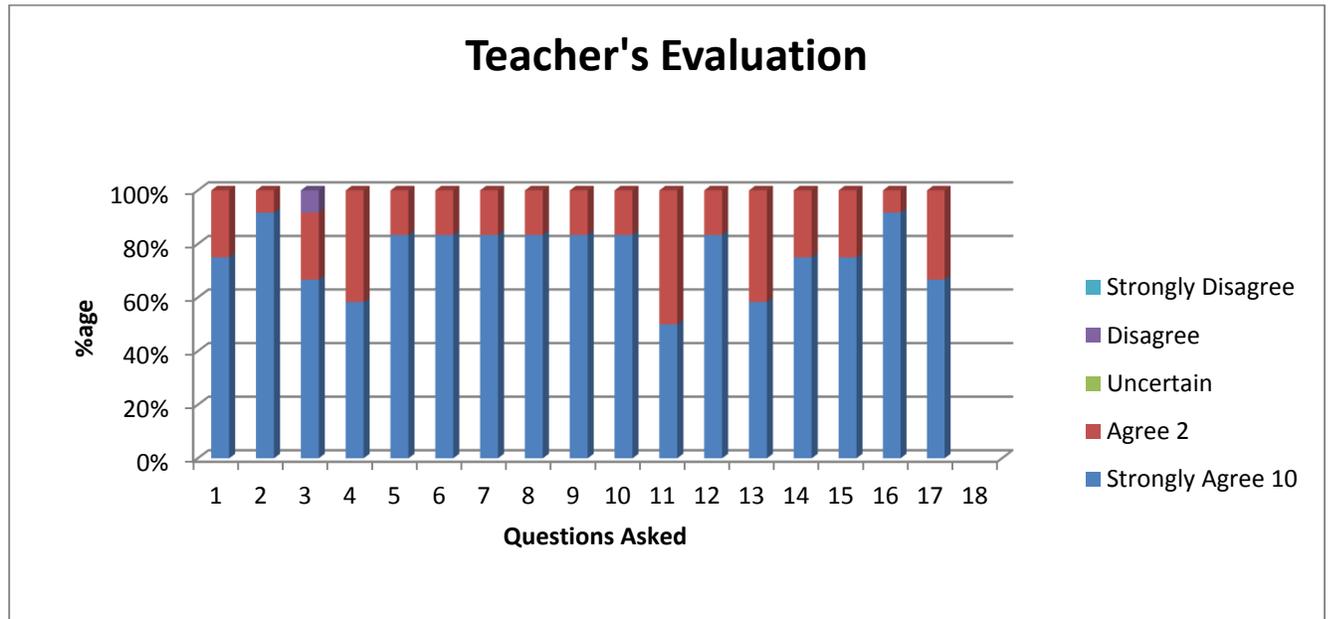


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| 16. The course integrates theoretical course concepts with presented in the course. | 15. The syllabus clearly states course objectives your knowledge of the subject. |
| 18. The course material is modern and updated. | 17. The assignments and exams covered the materials real-word applications. |

Fall 2010-11. Wildlife Management. (FR 605) Dr. Aamir Saleem

The course entitled “Wildlife Management” was taught by Dr. Aamir Saleem and was evaluated by the students through proforma no: 10. The following graph shows that teacher was always prepared and demonstrated knowledge very well.

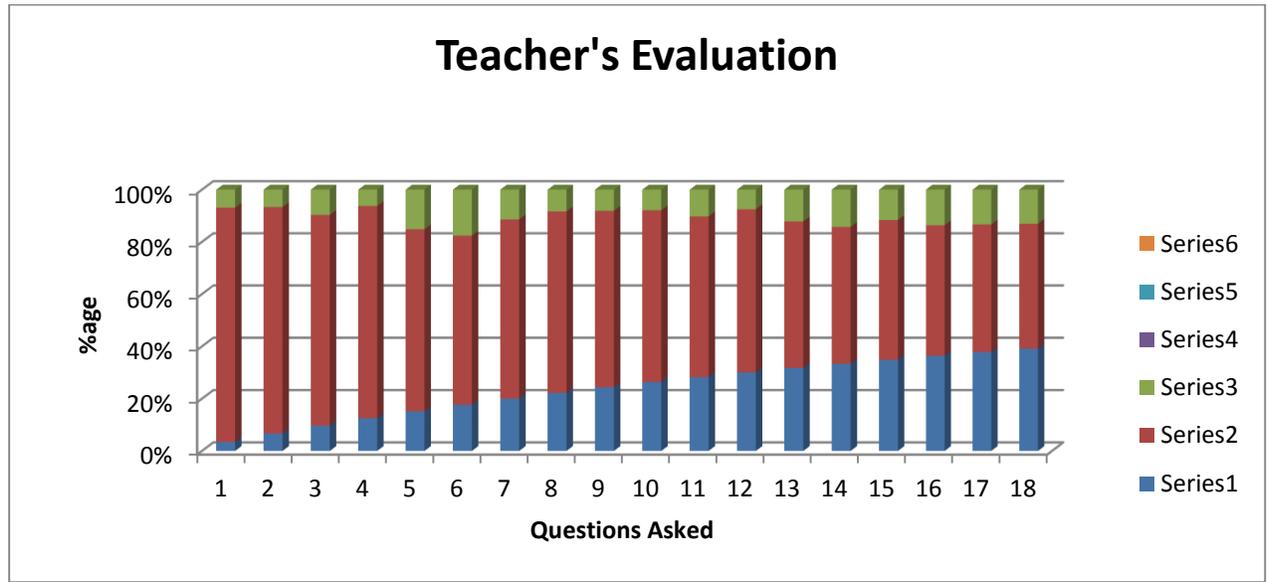


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| 16. The course integrates theoretical course concepts with presented in the course. | 17. The assignments and exams covered the materials real-word applications. |
| 18. The course material is modern and updated. | |

Spring 2011. Range Vegetation and Livestock Interaction. (FR 508) Ms. Lubna Ansari

The course entitled “Range Vegetation and Livestock Interaction” was taught by Ms. Lubna Ansari and was evaluated by the students through proforma no: 10. The following graph shows that teacher was always prepared and demonstrated knowledge very well. However 8% students were uncertain.

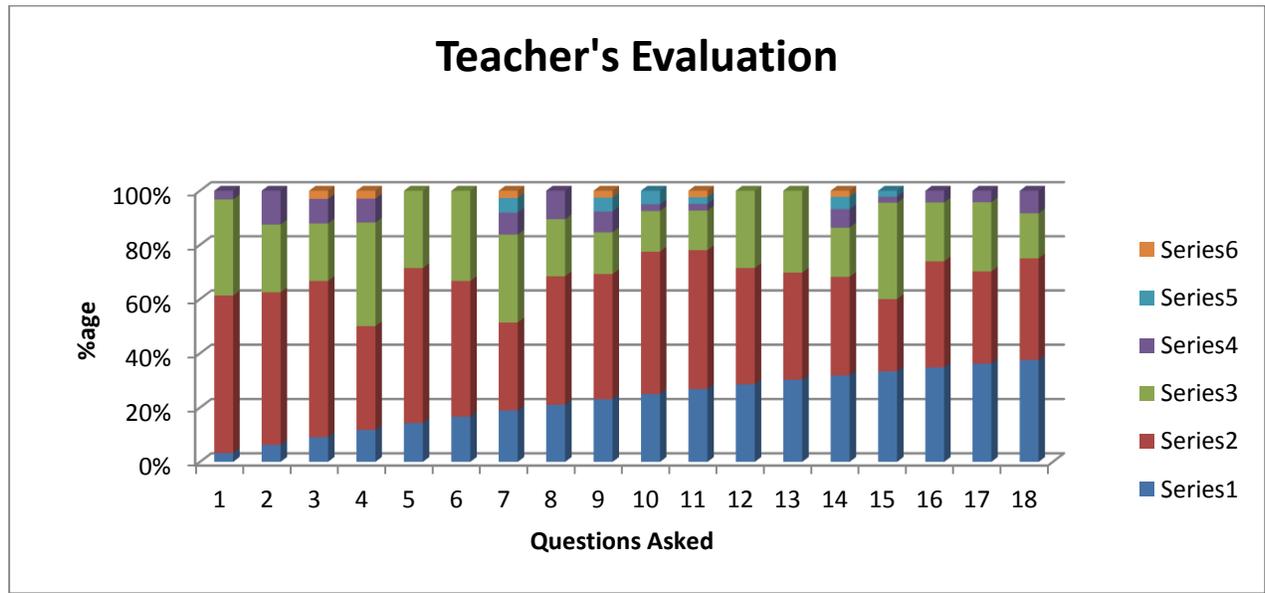


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| 16. The course integrates theoretical course concepts with presented in the course. | 15. The syllabus clearly states course objectives your knowledge of the subject. |
| 18. The course material is modern and updated. | 17. The assignments and exams covered the materials real-word applications. |

Spring 2011. Range Biodiversity and Environment. (FR 506) Mr. Saeed Gulzar

The course entitled “Range Biodiversity and Environment” was taught by Mr. Saeed Gulzar and was evaluated by the students through proforma no: 10. The following graph shows that teacher was always prepared and demonstrated knowledge very well. However 10% students were uncertain and dissatisfied.

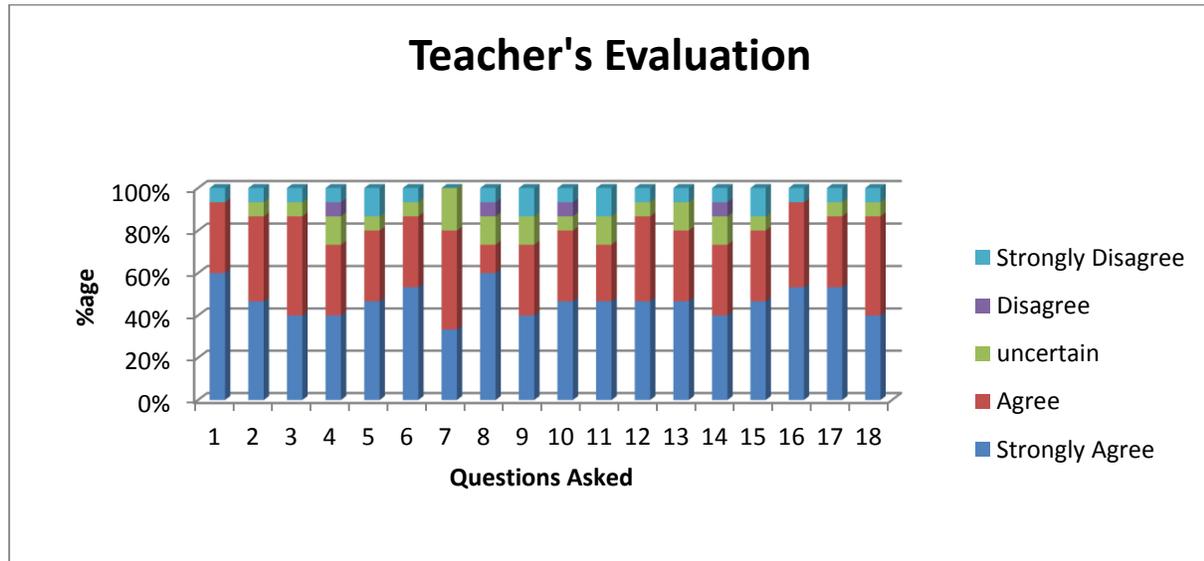


LEGEND (Questions asked)

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|------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------|
| 1. The Instructor is prepared for each class. | 2. The Instructor demonstrates knowledge of the subject |
| 3. The Instructor has completed the whole course . | 4. The Instructor provides additional material apart from text. |
| 5. The Instructor gives citations regarding current situations. With reference to Pakistani context. | 6. The Instructor communicates the subject matter effectively |
| 8. The Instructor maintains an environment that is conducive to learning. | 7. The Instructor shows respect towards students and encourages class participation. |
| 10. The Instructor leaves on time. | 9. The Instructor arrives on time. |
| 12. The Instructor returns the graded scripts. etc in a hours and for after class consultations. | 11. The Instructor is fair in examination. |
| 14. The subject matter presented in the course has increased requirements procedures and grading criteria. | 13. The Instructor was available during the specified office reasonable amount of time. |
| 16. The course integrates theoretical course concepts with presented in the course. | 15. The syllabus clearly states course objectives your knowledge of the subject. |
| 18. The course material is modern and updated. | 17. The assignments and exams covered the materials real-word applications. |

Spring 2011. Forest Protection. (FR 502) Dr. Irshad Ahmad Khan

The course entitled “Forest Protection” was taught by Dr. Irshad Ahmad Khan and was evaluated by the students through proforma no: 1. The following graph shows that teacher was always prepared and demonstrated knowledge very well. However 6% students were uncertain and dissatisfied.

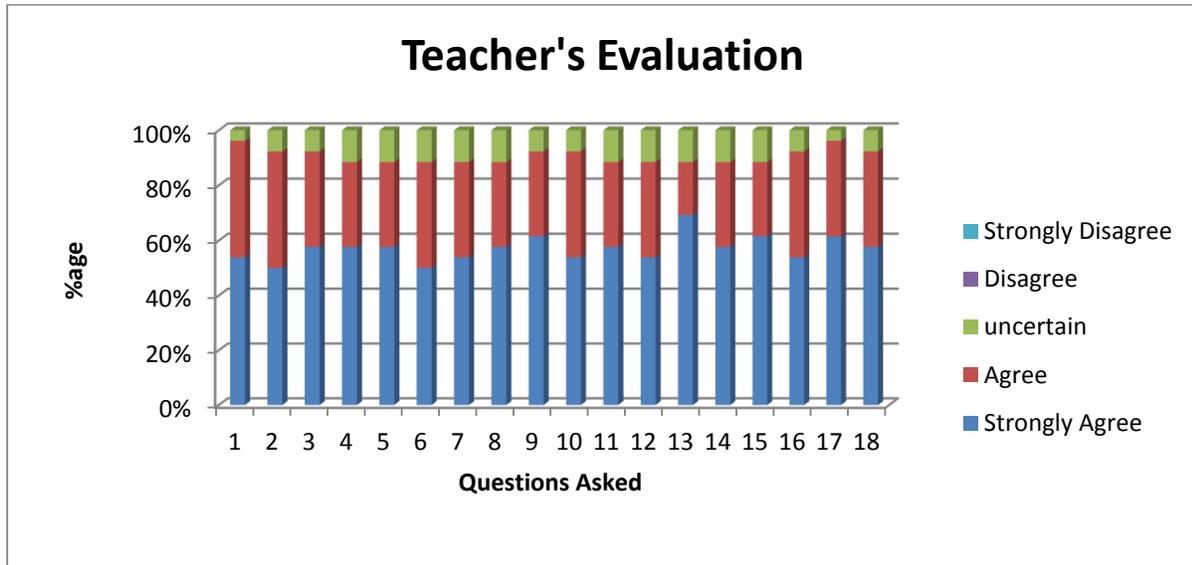


LEGEND (Questions asked)

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| 1. The Instructor is prepared for each class. | 2. The Instructor demonstrates knowledge of the subject |
| 3. The Instructor has completed the whole course . | 4. The Instructor provides additional material apart from text. |
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| 12. The Instructor returns the graded scripts. etc in a hours and for after class consultations. | 11. The Instructor is fair in examination. |
| 14. The subject matter presented in the course has increased requirements procedures and grading criteria. | 13. The Instructor was available during the specified office reasonable amount of time. |
| 16. The course integrates theoretical course concepts with presented in the course. | 15. The syllabus clearly states course objectives your knowledge of the subject. |
| 18. The course material is modern and updated. | 17. The assignments and exams covered the materials real-word applications. |

Fall 2011-12. Range Management. (FR 505) Dr. Irshad Ahmad Khan

The course entitled “Range Management” was taught by Dr. Irshad Ahmad Khan and was evaluated by the students through proforma no: 10. The following graph shows that teacher was always prepared and demonstrated knowledge very well. However 6% students were uncertain and dissatisfied.

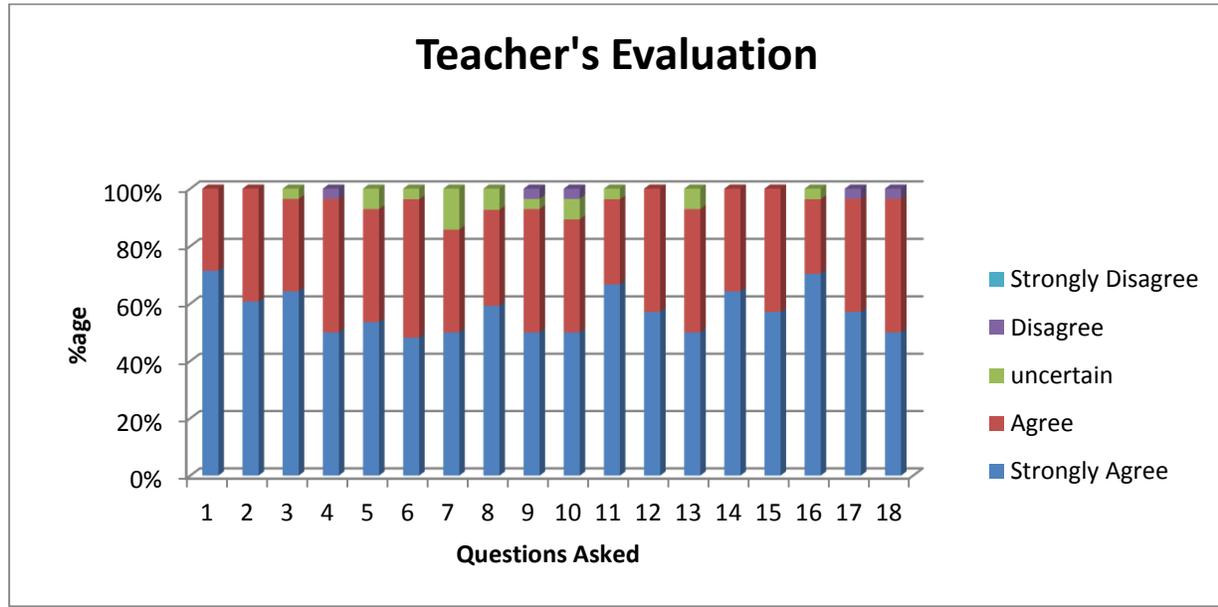


LEGEND (Questions asked)

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|------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------|
| 1. The Instructor is prepared for each class. | 2. The Instructor demonstrates knowledge of the subject |
| 3. The Instructor has completed the whole course . | 4. The Instructor provides additional material apart from text. |
| 5. The Instructor gives citations regarding current situations. With reference to Pakistani context. | 6. The Instructor communicates the subject matter effectively |
| 8. The Instructor maintains an environment that is conducive to learning. | 7. The Instructor shows respect towards students and encourages class participation. |
| 10. The Instructor leaves on time. | 9. The Instructor arrives on time. |
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| 14. The subject matter presented in the course has increased requirements procedures and grading criteria. | 13. The Instructor was available during the specified office reasonable amount of time. |
| 16. The course integrates theoretical course concepts with presented in the course. | 15. The syllabus clearly states course objectives your knowledge of the subject. |
| 18. The course material is modern and updated. | 17. The assignments and exams covered the materials real-word applications. |

Fall 2011-12. Principles of Agroforestry. (FR 503) Mr. Saeed Gulzar

The course entitled “Principles of Agroforestry” was taught by Mr. Saeed Gulzar and was evaluated by the students through proforma no: 10. The following graph shows that teacher was always prepared and demonstrated knowledge very well.

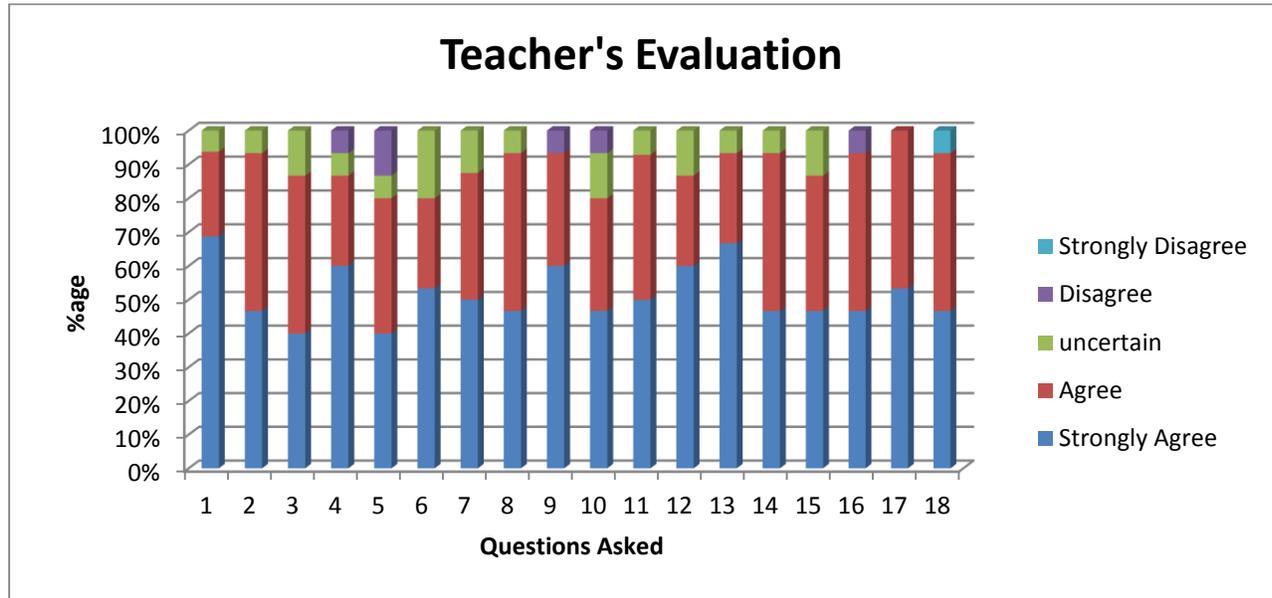


LEGEND (Questions asked)

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|------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------|
| 1. The Instructor is prepared for each class. | 2. The Instructor demonstrates knowledge of the subject |
| 3. The Instructor has completed the whole course . | 4. The Instructor provides additional material apart from text. |
| 5. The Instructor gives citations regarding current situations. With reference to Pakistani context. | 6. The Instructor communicates the subject matter effectively |
| 8. The Instructor maintains an environment that is conducive to learning. | 7. The Instructor shows respect towards students and encourages class participation. |
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| 12. The Instructor returns the graded scripts. etc in a hours and for after class consultations. | 11. The Instructor is fair in examination. |
| 14. The subject matter presented in the course has increased requirements procedures and grading criteria. | 13. The Instructor was available during the specified office reasonable amount of time. |
| 16. The course integrates theoretical course concepts with presented in the course. | 15. The syllabus clearly states course objectives your knowledge of the subject. |
| 18. The course material is modern and updated. | 17. The assignments and exams covered the materials real-word applications. |

Fall 2011-12. Range Improvement and Rehabilitation. (FR 601) Dr. Irshad Ahmad Khan

The course entitled “Range Improvement and Rehabilitation” was taught by Dr. Irshad Ahmad Khan and was evaluated by the students through proforma no: 10. The following graph shows that teacher was always prepared and demonstrated knowledge very well.

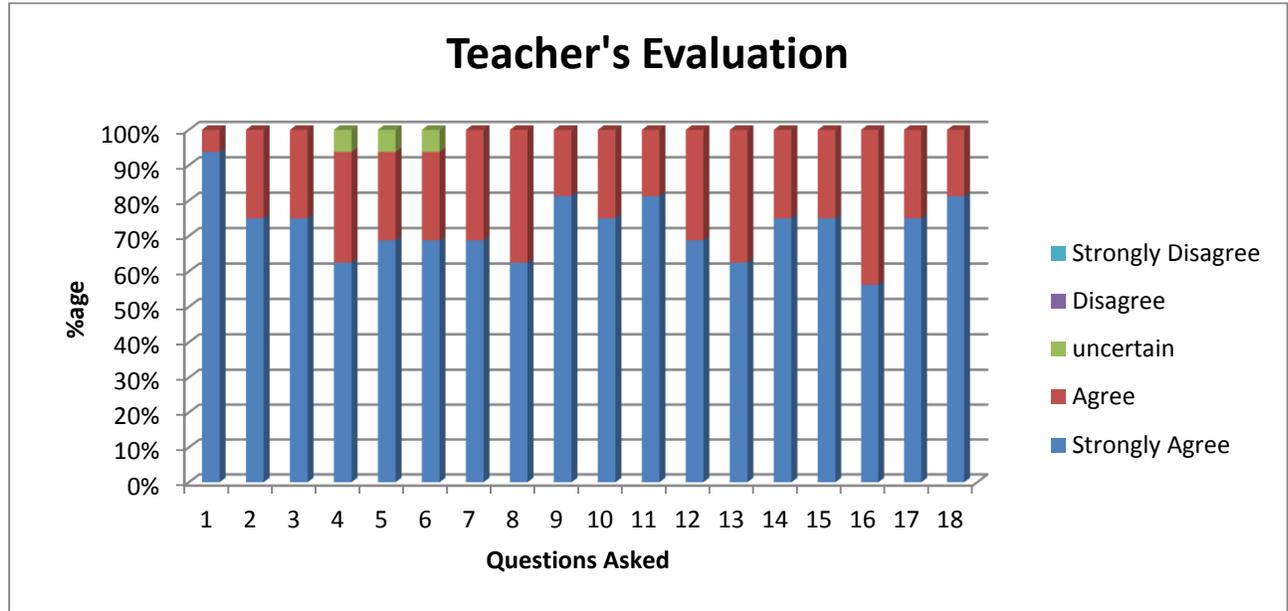


LEGEND (Questions asked)

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|------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------|
| 1. The Instructor is prepared for each class. | 2. The Instructor demonstrates knowledge of the subject |
| 3. The Instructor has completed the whole course . | 4. The Instructor provides additional material apart from text. |
| 5. The Instructor gives citations regarding current situations. With reference to Pakistani context. | 6. The Instructor communicates the subject matter effectively |
| 8. The Instructor maintains an environment that is conducive to learning. | 7. The Instructor shows respect towards students and encourages class participation. |
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| 14. The subject matter presented in the course has increased requirements procedures and grading criteria. | 13. The Instructor was available during the specified office reasonable amount of time. |
| 16. The course integrates theoretical course concepts with presented in the course. | 15. The syllabus clearly states course objectives your knowledge of the subject. |
| 18. The course material is modern and updated. | 17. The assignments and exams covered the materials real-word applications. |

Fall 2011-12. Forest Timber Science. (FR 603) Ms. Lubna Ansari

The course entitled “Forest Timber Science” was taught by Ms. Lubna Ansari Khan and was evaluated by the students through proforma no: 10. The following graph shows that teacher was always prepared and demonstrated knowledge very well.

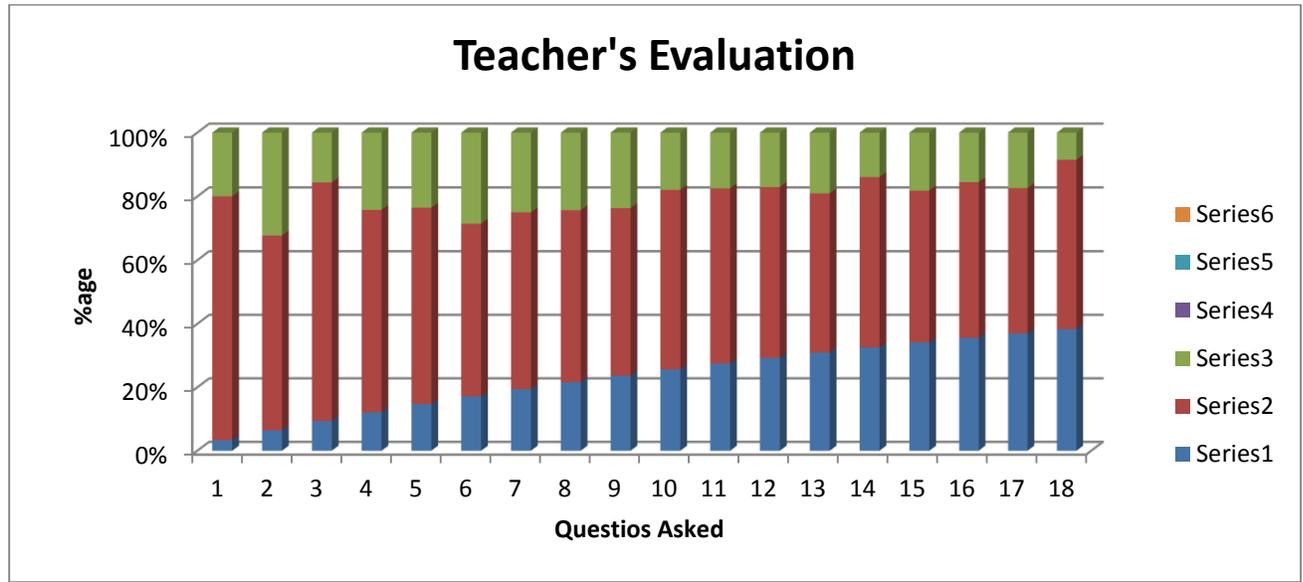


LEGEND (Questions asked)

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|------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------|
| 1. The Instructor is prepared for each class. | 2. The Instructor demonstrates knowledge of the subject |
| 3. The Instructor has completed the whole course . | 4. The Instructor provides additional material apart from text. |
| 5. The Instructor gives citations regarding current situations. With reference to Pakistani context. | 6. The Instructor communicates the subject matter effectively |
| 8. The Instructor maintains an environment that is conducive to learning. | 7. The Instructor shows respect towards students and encourages class participation. |
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| 14. The subject matter presented in the course has increased requirements procedures and grading criteria. | 13. The Instructor was available during the specified office reasonable amount of time. |
| 16. The course integrates theoretical course concepts with presented in the course. | 15. The syllabus clearly states course objectives your knowledge of the subject. |
| 18. The course material is modern and updated. | 17. The assignments and exams covered the materials real-word applications. |

Spring 2012. Watershed Management. (FR 504) Dr. Abdul Khaliq

The course entitled “Watershed Management” was taught by Dr. Abdul Khaliq and was evaluated by the students through proforma no: 10. The following graph shows that teacher was always prepared and demonstrated knowledge very well. However about 8% students were uncertain.

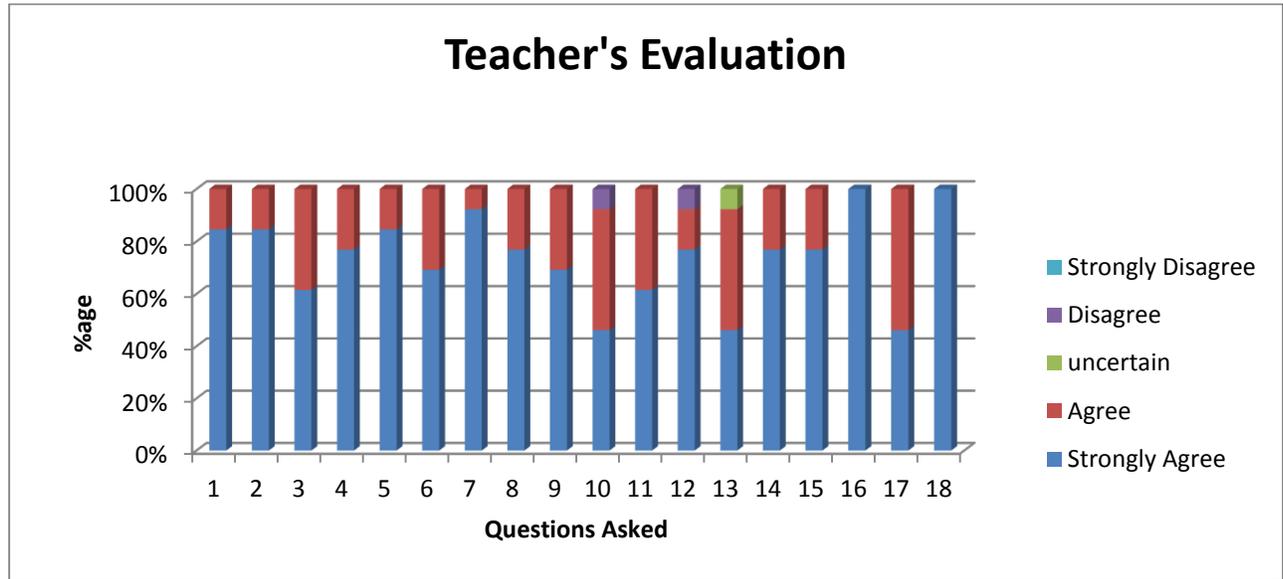


LEGEND (Questions asked)

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|------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------|
| 1. The Instructor is prepared for each class. | 2. The Instructor demonstrates knowledge of the subject |
| 3. The Instructor has completed the whole course . | 4. The Instructor provides additional material apart from text. |
| 5. The Instructor gives citations regarding current situations. With reference to Pakistani context. | 6. The Instructor communicates the subject matter effectively |
| 7. The Instructor shows respect towards students and encourages class participation. | |
| 8. The Instructor maintains an environment that is conducive to learning. | 9. The Instructor arrives on time. |
| 10. The Instructor leaves on time. | 11. The Instructor is fair in examination. |
| 12. The Instructor returns the graded scripts. etc in a hours and for after class consultations. | 13. The Instructor was available during the specified office reasonable amount of time. |
| 14. The subject matter presented in the course has increased requirements procedures and grading criteria. | 15. The syllabus clearly states course objectives your knowledge of the subject. |
| 16. The course integrates theoretical course concepts with presented in the course. | 17. The assignments and exams covered the materials real-word applications. |
| 18. The course material is modern and updated. | |

Spring 2012. Forest Inventory and Working Plan-II. (FR 604) Dr. S. M. Nizami

The course entitled “Forest Inventory and Working Plan-II” was taught by Ms. Dr. S. M. Nizami and was evaluated by the students through proforma no: 10 The following graph shows that teacher was always prepared and demonstrated knowledge very well.

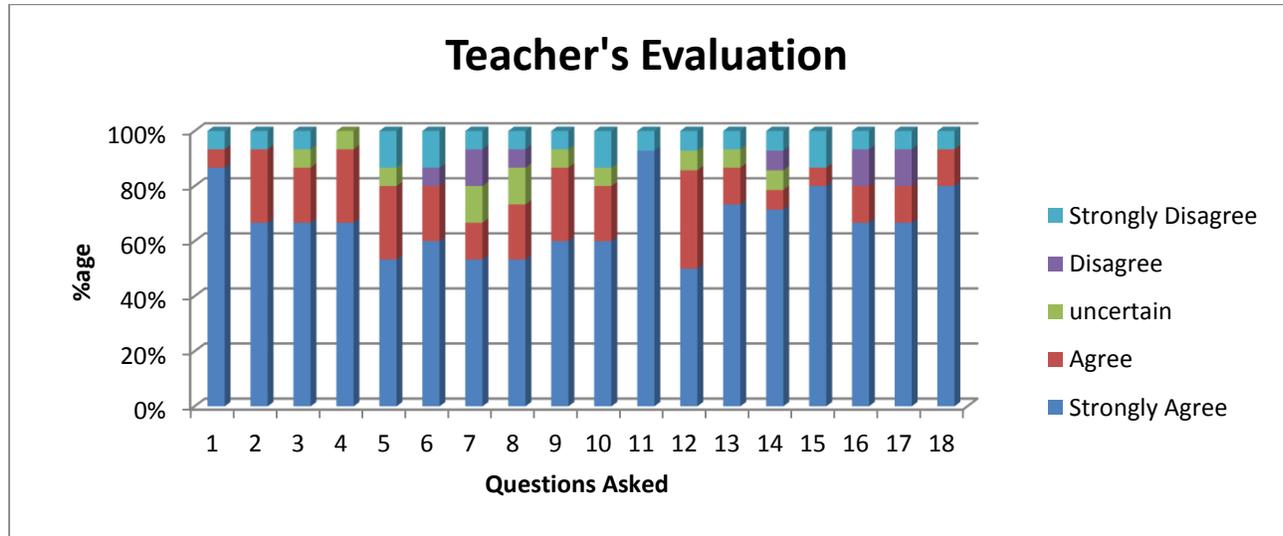


LEGEND (Questions asked)

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|------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------|
| 1. The Instructor is prepared for each class. | 2. The Instructor demonstrates knowledge of the subject |
| 3. The Instructor has completed the whole course . | 4. The Instructor provides additional material apart from text. |
| 5. The Instructor gives citations regarding current situations. With reference to Pakistani context. | 6. The Instructor communicates the subject matter effectively |
| 8. The Instructor maintains an environment that is conducive to learning. | 7. The Instructor shows respect towards students and encourages class participation. |
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| 12. The Instructor returns the graded scripts. etc in a hours and for after class consultations. | 11. The Instructor is fair in examination. |
| 14. The subject matter presented in the course has increased requirements procedures and grading criteria. | 13. The Instructor was available during the specified office reasonable amount of time. |
| 16. The course integrates theoretical course concepts with presented in the course. | 15. The syllabus clearly states course objectives your knowledge of the subject. |
| 18. The course material is modern and updated. | 17. The assignments and exams covered the materials real-word applications. |

Spring 2012. Project , Execution and Scientific Writing. (FR 608) Dr. Aamir Saleem

The course entitled “Project , Execution and Scientific Writing” was taught by Ms. Dr. Aamir Saleem and was evaluated by the students through proforma no: 10. The following graph shows that teacher was always prepared and demonstrated knowledge very well. However 5% students were uncertain and dissatisfied.

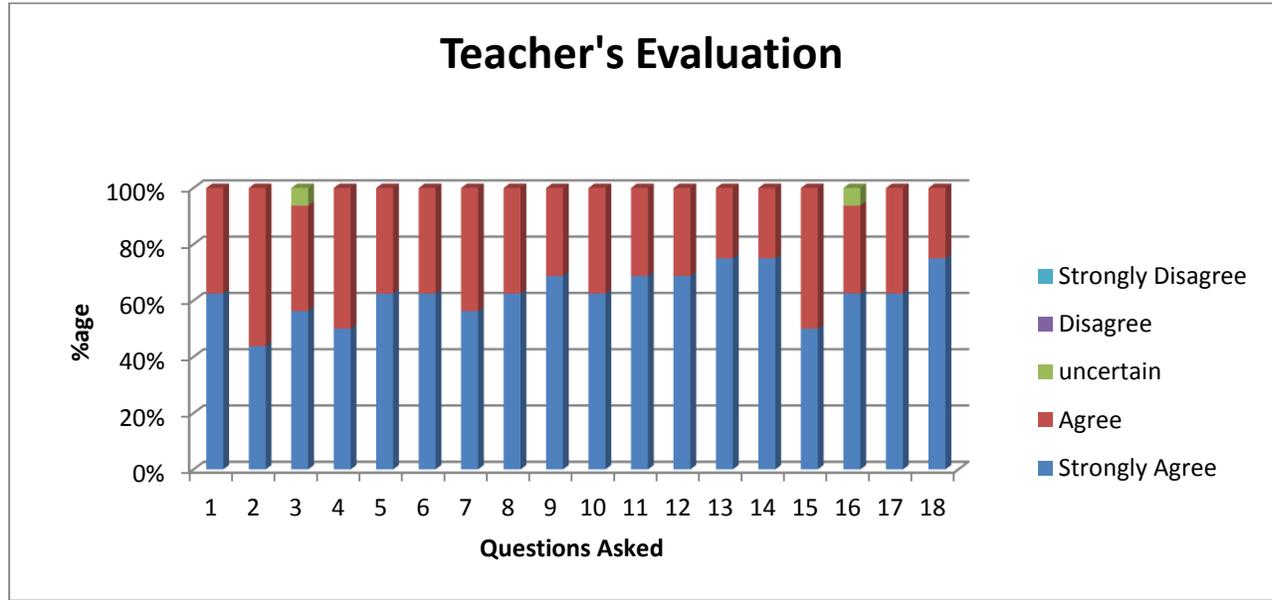


LEGEND (Questions asked)

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|------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------|
| 1. The Instructor is prepared for each class. | 2. The Instructor demonstrates knowledge of the subject |
| 3. The Instructor has completed the whole course . | 4. The Instructor provides additional material apart from text. |
| 5. The Instructor gives citations regarding current situations. With reference to Pakistani context. | 6. The Instructor communicates the subject matter effectively |
| 8. The Instructor maintains an environment that is conducive to learning. | 7. The Instructor shows respect towards students and encourages class participation. |
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| 14. The subject matter presented in the course has increased requirements procedures and grading criteria. | 13. The Instructor was available during the specified office reasonable amount of time. |
| 16. The course integrates theoretical course concepts with presented in the course. | 15. The syllabus clearly states course objectives your knowledge of the subject. |
| 18. The course material is modern and updated. | 17. The assignments and exams covered the materials real-word applications. |

Spring 2012. Forest Inventory and Working Plan-II. (FR 602) Dr. S. M. Nizami

The course entitled “Forest Inventory and Working Plan-I” was taught by Ms. Dr. S. M. Nizami and was evaluated by the students through proforma no: 10. The following graph shows that teacher was always prepared and demonstrated knowledge very well.

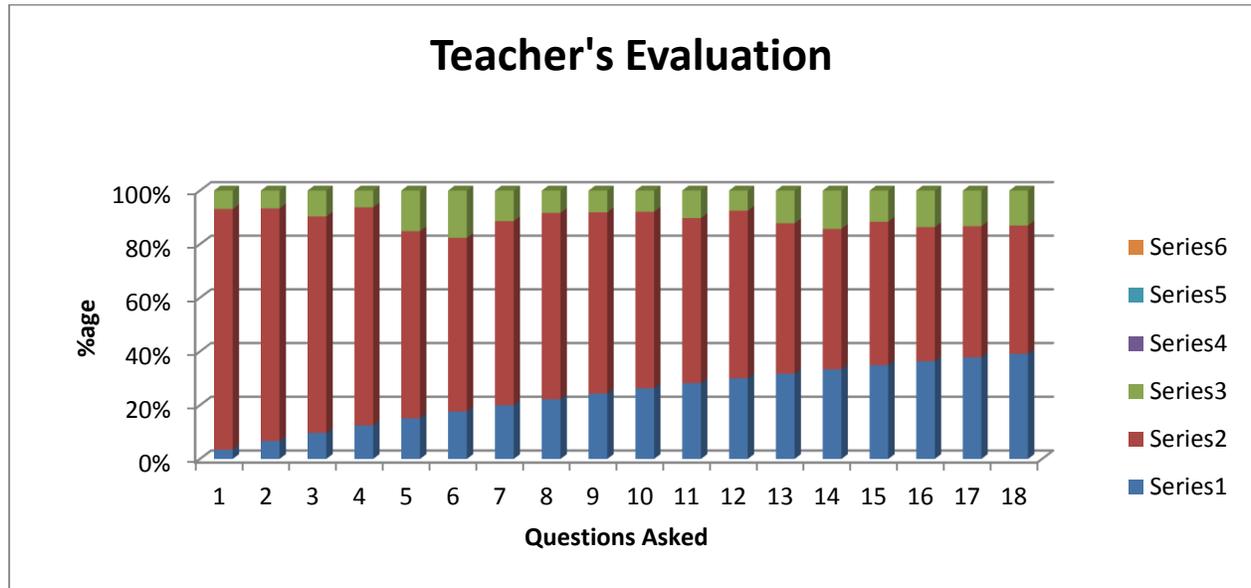


LEGEND (Questions asked)

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|------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------|
| 1. The Instructor is prepared for each class. | 2. The Instructor demonstrates knowledge of the subject |
| 3. The Instructor has completed the whole course . | 4. The Instructor provides additional material apart from text. |
| 5. The Instructor gives citations regarding current situations. With reference to Pakistani context. | 6. The Instructor communicates the subject matter effectively |
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| 14. The subject matter presented in the course has increased requirements procedures and grading criteria. | 13. The Instructor was available during the specified office reasonable amount of time. |
| 16. The course integrates theoretical course concepts with presented in the course. | 15. The syllabus clearly states course objectives your knowledge of the subject. |
| 18. The course material is modern and updated. | 17. The assignments and exams covered the materials real-word applications. |

Spring 2012. Range Vegetation and Livestock Interaction. (FR 508) Ms. Lubna Ansari

The course entitled “Range Vegetation and Livestock Interaction” was taught by Ms. Lubna Ansari and was evaluated by the students through proforma no: 10. The following graph shows that teacher was always prepared and demonstrated knowledge very well. However 5% students were uncertain.

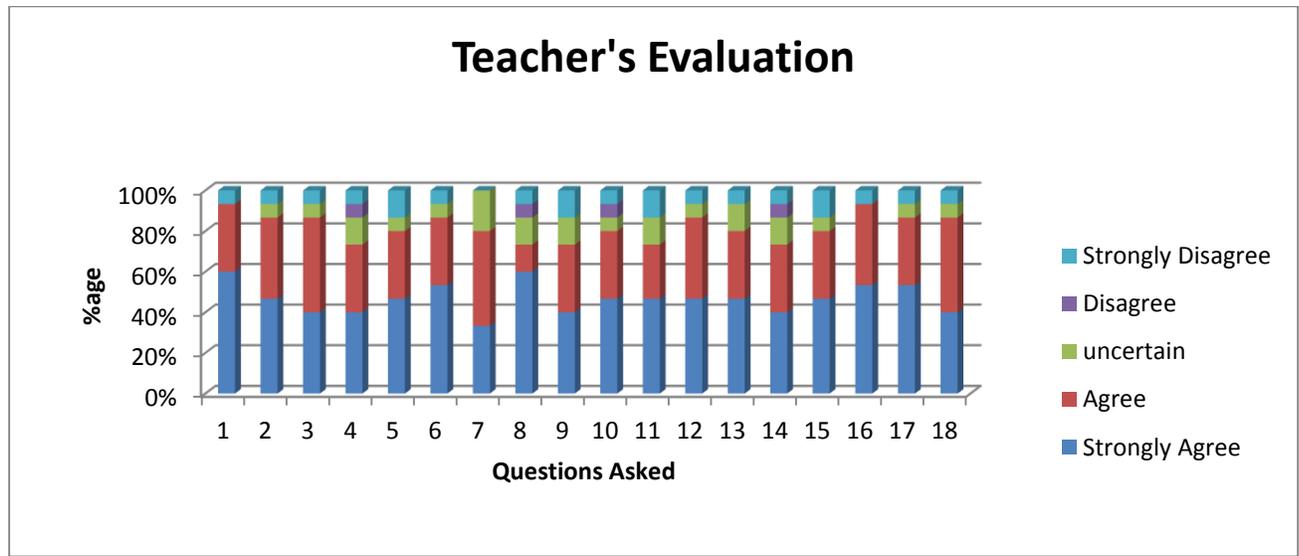


LEGEND (Questions asked)

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|------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------|
| 1. The Instructor is prepared for each class. | 2. The Instructor demonstrates knowledge of the subject |
| 3. The Instructor has completed the whole course . | 4. The Instructor provides additional material apart from text. |
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| 14. The subject matter presented in the course has increased requirements procedures and grading criteria. | 13. The Instructor was available during the specified office reasonable amount of time. |
| 16. The course integrates theoretical course concepts with presented in the course. | 15. The syllabus clearly states course objectives your knowledge of the subject. |
| 18. The course material is modern and updated. | 17. The assignments and exams covered the materials real-word applications. |

Spring 2012. Forest Protection. (FR 502) Dr. Irshad A. Khan

The course entitled “Forest Protection” was taught by Dr. Irshad A. Khan and was evaluated by the students through proforma no: 10. The following graph shows that teacher was always prepared and demonstrated knowledge very well. However few students were uncertain and dissatisfied.

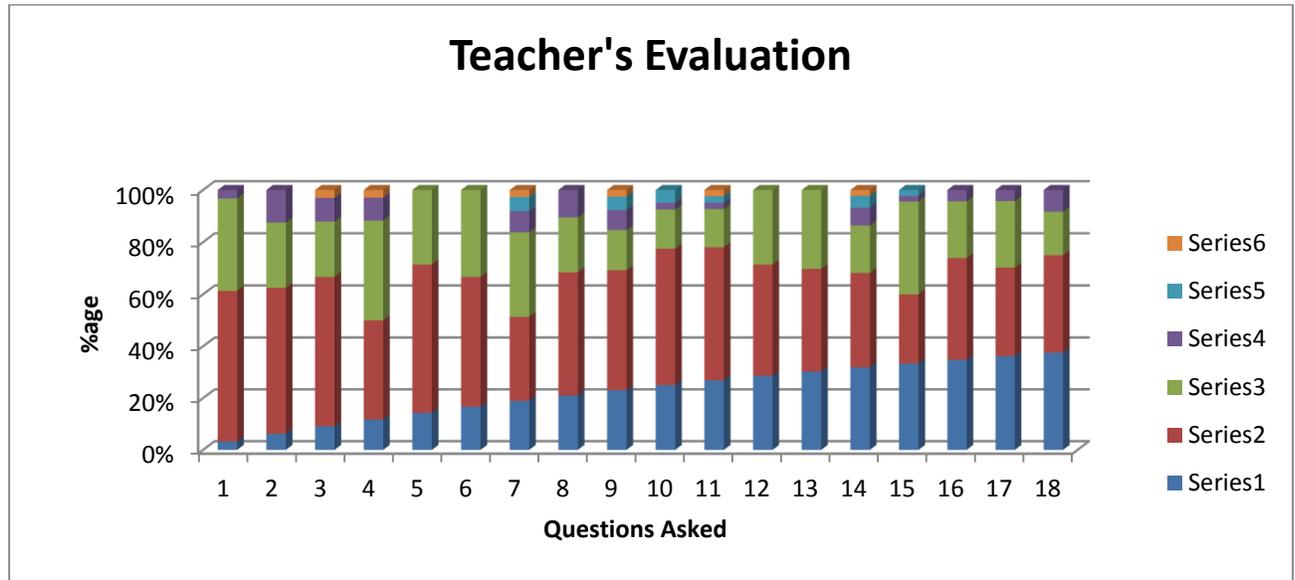


LEGEND (Questions asked)

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|------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------|
| 1. The Instructor is prepared for each class. | 2. The Instructor demonstrates knowledge of the subject |
| 3. The Instructor has completed the whole course . | 4. The Instructor provides additional material apart from text. |
| 5. The Instructor gives citations regarding current situations. With reference to Pakistani context. | 6. The Instructor communicates the subject matter effectively |
| 8. The Instructor maintains an environment that is conducive to learning. | 9. The Instructor arrives on time. |
| 10. The Instructor leaves on time. | 11. The Instructor is fair in examination. |
| 12. The Instructor returns the graded scripts. etc in a hours and for after class consultations. | 13. The Instructor was available during the specified office reasonable amount of time. |
| 14. The subject matter presented in the course has increased requirements procedures and grading criteria. | 15. The syllabus clearly states course objectives your knowledge of the subject. |
| 16. The course integrates theoretical course concepts with presented in the course. | 17. The assignments and exams covered the materials real-word applications. |
| 18. The course material is modern and updated. | |

Spring 2012. Range and Forest Biodiversity. (FR 506) Mr. Saeed Gulzar

The course entitled “. Range and Forest Biodiversity” was taught by Mr. Saeed Gulzar and was evaluated by the students through proforma no: 10. The following graph shows that teacher was always prepared and demonstrated knowledge very well. However 8% students were uncertain and some were dissatisfied.

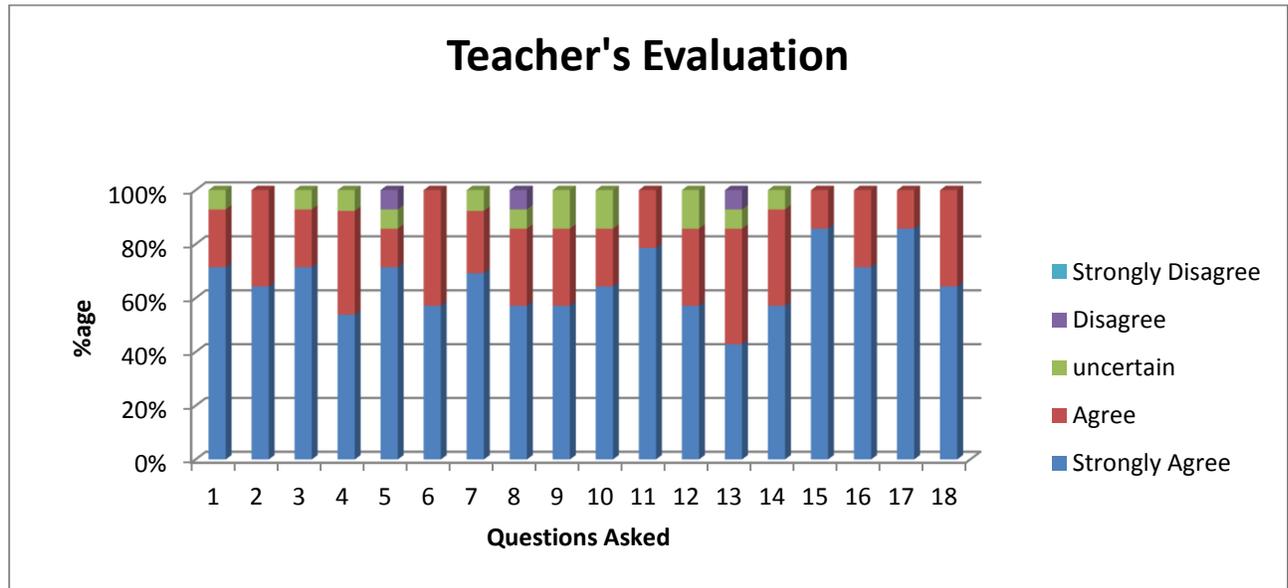


LEGEND (Questions asked)

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|------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------|
| 1. The Instructor is prepared for each class. | 2. The Instructor demonstrates knowledge of the subject |
| 3. The Instructor has completed the whole course . | 4. The Instructor provides additional material apart from text. |
| 5. The Instructor gives citations regarding current situations. With reference to Pakistani context. | 6. The Instructor communicates the subject matter effectively |
| 8. The Instructor maintains an environment that is conducive to learning. | 7. The Instructor shows respect towards students and encourages class participation. |
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| 12. The Instructor returns the graded scripts. etc in a hours and for after class consultations. | 11. The Instructor is fair in examination. |
| 14. The subject matter presented in the course has increased requirements procedures and grading criteria. | 13. The Instructor was available during the specified office reasonable amount of time. |
| 16. The course integrates theoretical course concepts with presented in the course. | 15. The syllabus clearly states course objectives your knowledge of the subject. |
| 18. The course material is modern and updated. | 17. The assignments and exams covered the materials real-word applications. |

Spring 2012. Forest Law and Policy. (FR 606) Mr. Saeed Gulzar

The course entitled “Forest Law and Policy” was taught by Mr. Saeed Gulzar and was evaluated by the students through proforma no: 10. The following graph shows that teacher was always prepared and demonstrated knowledge very well.



LEGEND (Questions asked)

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|------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------|
| 1. The Instructor is prepared for each class. | 2. The Instructor demonstrates knowledge of the subject |
| 3. The Instructor has completed the whole course . | 4. The Instructor provides additional material apart from text. |
| 5. The Instructor gives citations regarding current situations. With reference to Pakistani context. | 6. The Instructor communicates the subject matter effectively |
| 8. The Instructor maintains an environment that is conducive to learning. | 7. The Instructor shows respect towards students and encourages class participation. |
| 10. The Instructor leaves on time. | 9. The Instructor arrives on time. |
| 12. The Instructor returns the graded scripts. etc in a hours and for after class consultations. | 11. The Instructor is fair in examination. |
| 14. The subject matter presented in the course has increased requirements procedures and grading criteria. | 13. The Instructor was available during the specified office reasonable amount of time. |
| 16. The course integrates theoretical course concepts with presented in the course. | 15. The syllabus clearly states course objectives your knowledge of the subject. |
| 18. The course material is modern and updated. | 17. The assignments and exams covered the materials real-word applications. |

Student course evaluation

Table 4: The courses were offered by the department during fall 2010-11, spring 2011, Fall 2011-12 and Spring 2012 by the Department of FRM.

Semester	Course Title	Course Code	Teacher
Fall 2010-11	Range Management	FR 505	Ms. Lubna Ansari
-do-	General Silviculture	FR 501	Dr. Abdul Khaliq
-do-	Principle of Agroforestry	FR 503	Mr. Saeed Gulzar
-do-	Project Planning and Scientific Writing	FR 609	Dr. Aamir Saleem
-do-	Range medicinal and Poisonous Plants	FR 607	Dr. Irshad Ahmad Khan
-do-	Forest Timber Science	FR 603	Dr. Abdul Khaliq
-do-	Range Improvement and Rehabilitation	FR 601	Ms. Lubna Ansari
-do-	Forest Law and policy	FR 611	Mr. Saeed Gulzar
-do-	Wildlife Management	FR 605	Dr. Aamir Saleem
Spring 2011	Range Vegetation and Livestock Interaction	FR 508	Ms. Lubna Ansari
-do-	Range Biodiversity and Environment	FR 506	Mr. Saeed Gulzar
-do-	Forest Protection	FR 502	Dr. Irshad Ahmad Khan
Fall 2011-12	Range Management	FR 505	Dr. Irshad Ahmad Khan
-do-	Principle of Agroforestry	FR 503	Mr. Saeed Gulzar
-do-	Range Improvement and Rehabilitation	FR 601	Dr. Irshad Ahmad Khan
-do-	Forest Timber Science	FR 603	Ms. Lubna Ansari
Spring 2012	Watershed Management	FR 504	Dr. Abdul Khaliq
-do-	Forest Inventory and Working Plan-II	FR 604	Dr. S. M. Nizami
-do-	Forest Inventory and	FR 608	Dr. S. M. Nizami

	Working Plan-I		
-do-	Project Planning and Scientific Writing	FR 609	Dr. Aamir Saleem
-do-	Range Vegetation and Livestock Interaction	FR 508	Ms. Lubna Ansari
-do-	Forest Protection	FR 502	Dr. Irshad Ahmad Khan
-do-	Range Biodiversity and Environment	FR 506	Mr. Saeed Gulzar
-do-	Forest Law and policy	FR 606	Mr. Saeed Gulzar

The courses of the respective teachers were evaluated per Performa-1 and the results are shown in graphical form in the graph below. Results are graphically presented in figure 1, 2, 3 and 4 respectively. The overall compiled result showed that top scoring in the department is 3.89 and lowest is 4.8.

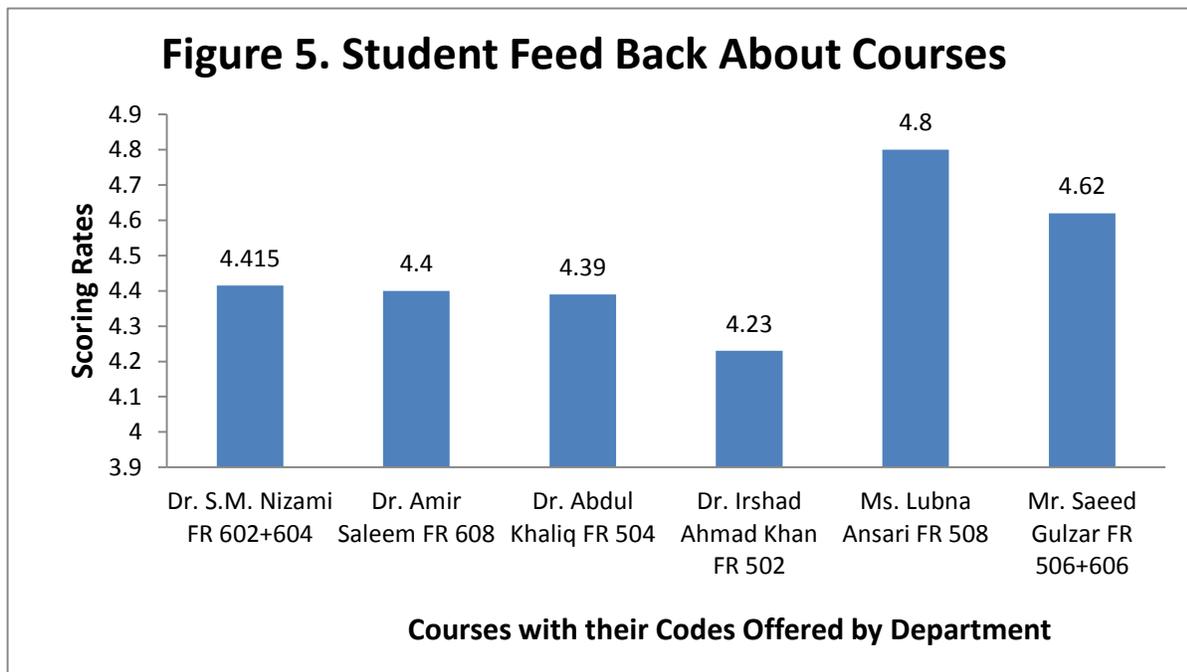


Figure 6. Student Feed Back About Courses

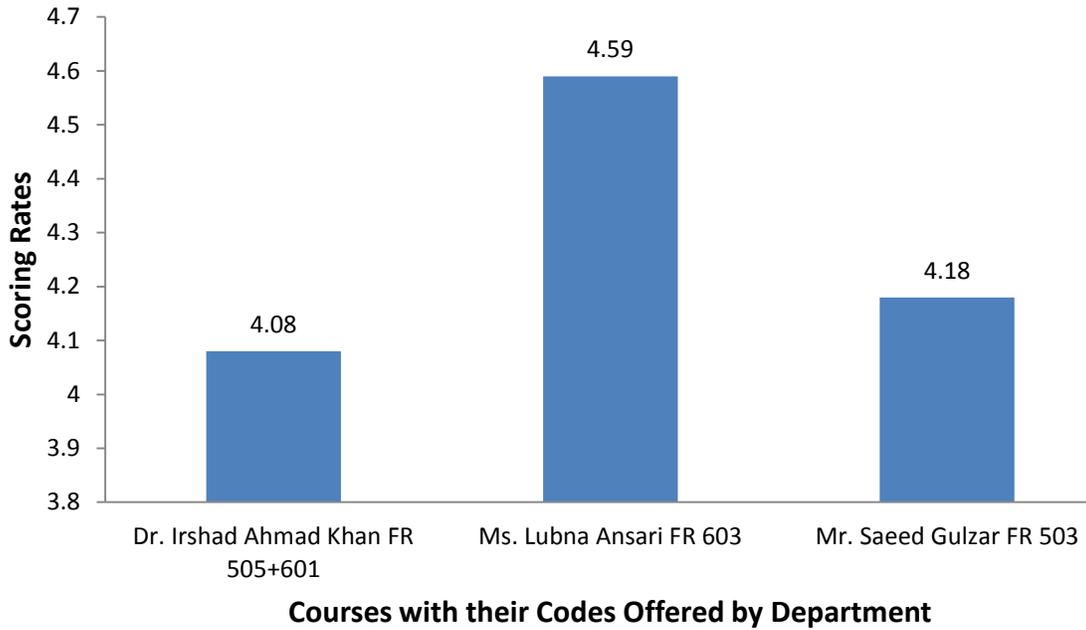


Figure 7. Student Feed Back About Courses

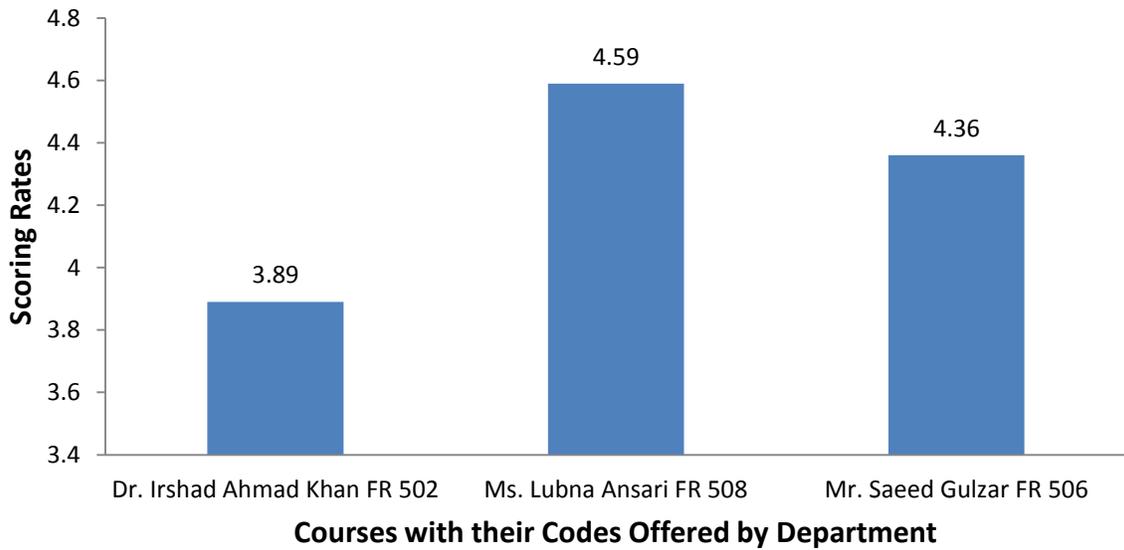
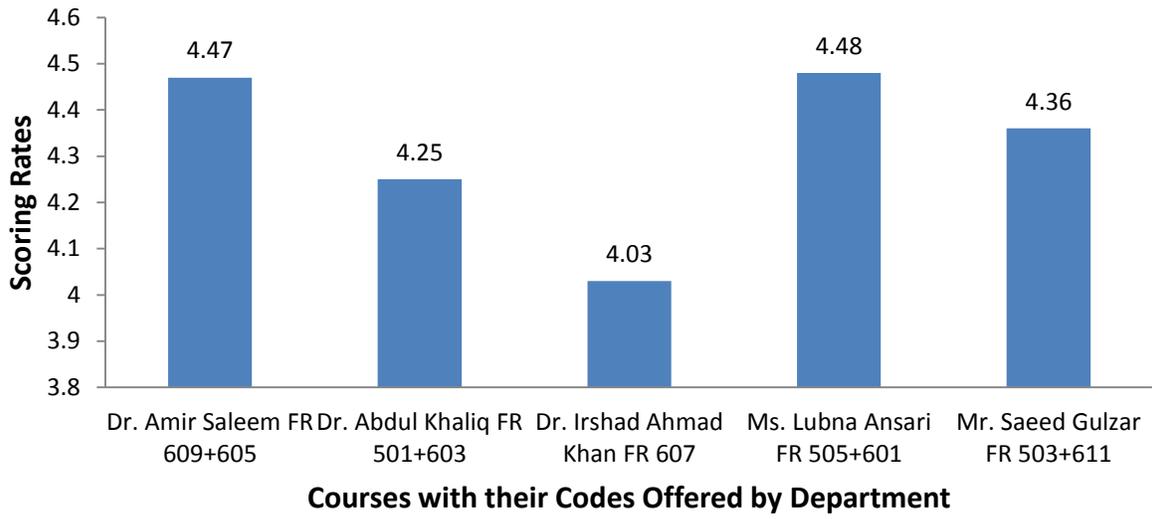


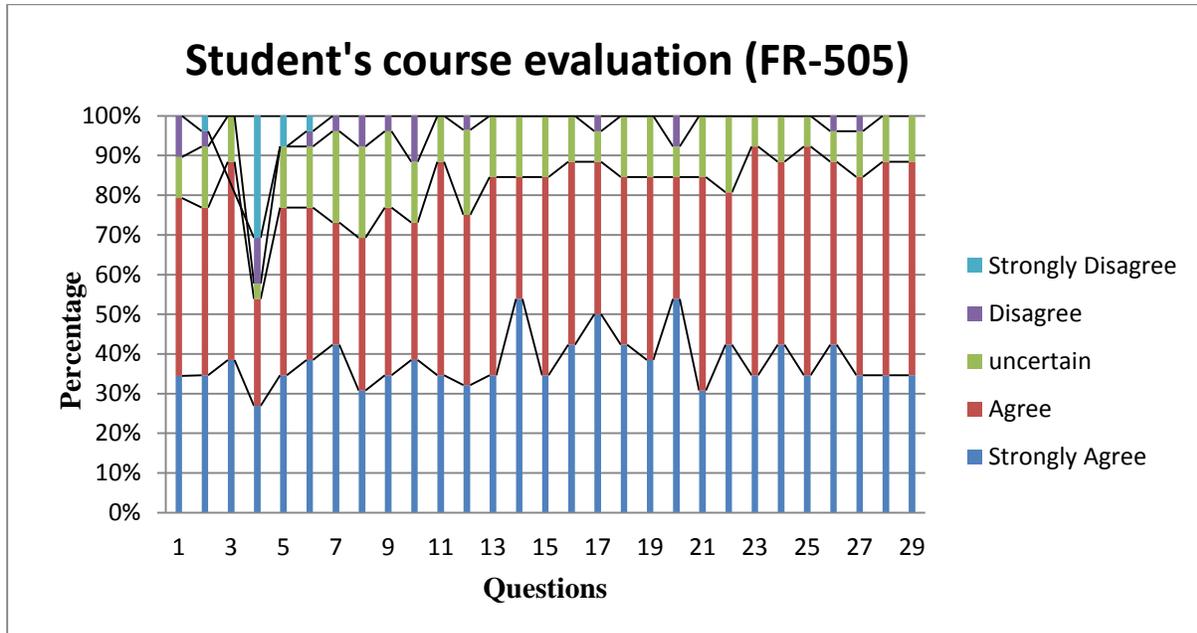
Figure 8. Student Feed Back About Courses



Assesment of each course is presented in the following graphs.

Ms. Lubna Ansari- Lecturer (FR 505)

The course entitled “Range Management” was taught by Ms. Lubna Ansari and was evaluated by the students through proforma no: 1. The perception of the student for this course is well defined in the following graph.

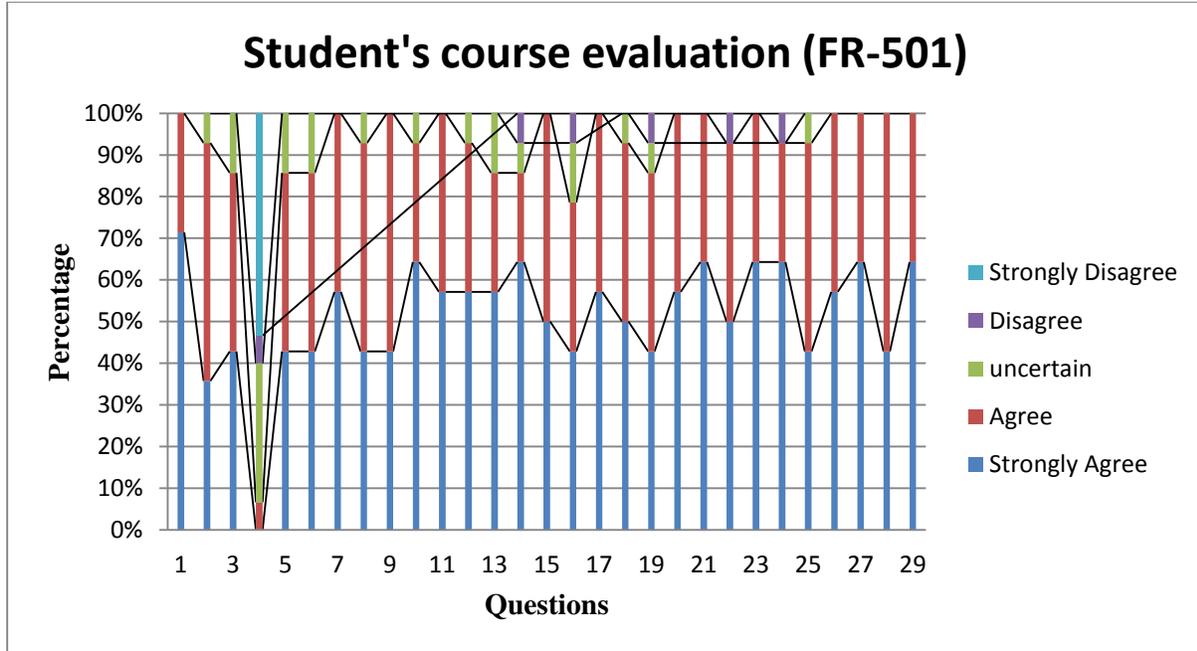


LEGEND

- | | |
|-----------------------------------------------------------------------------|--------------------------------------------------------------|
| 1. Course objective were clear. | 2. Course workload were easily manageable. |
| 3. Course well organized | 4. Approximate level of own attendance in course. |
| 5. Participated actively in course. | 6. I made progress in this course. |
| 7. Course was well structured to achieve learning outcomes. | 8. Learning and teaching methods encouraged participation. |
| 9. Overall environment in class was conducive to learning. | 10. Class rooms were satisfactory. |
| 11. Learning material were relevant and useful. | 12. Recommended reading books were relevant and appropriate. |
| 13. Provision of learning resource in library was adequate and appropriate. | 14. Course stimulated my interest and thought on subject. |
| 15. Pace of course was appropriate. | 16. Ideas and concepts were present clearly. |
| 17. Method of assessment were reasonable. | 18. Feedback on assessment was timely. |
| 19. Feedback on assessment was helpful. | 20. I understood the lectures. |
| 21. Material was well organised and presented. | 22. Instructor was responsive to student needs in problems. |
| 23. Instructor was responsive to student needs in problems. | 24. Had the instructor been regular throughout the course? |
| 25. Material in the tutorial was useful. | 26. I was happy with the amount of work needed for tutorial. |
| 27. Tutor dealt effectively with my problems. | 28. Material in the practicals was useful. |
| 29. Demonstrator dealt effectively with my problems | |

Dr. Abdul Khaliq- Assistant Professor (FR 501)

The course entitled “General Silviculture” was taught by Dr. Abdul Khaliq and was evaluated by the students through proforma no: 1. The perception of the student for this course is well defined in the following graph.

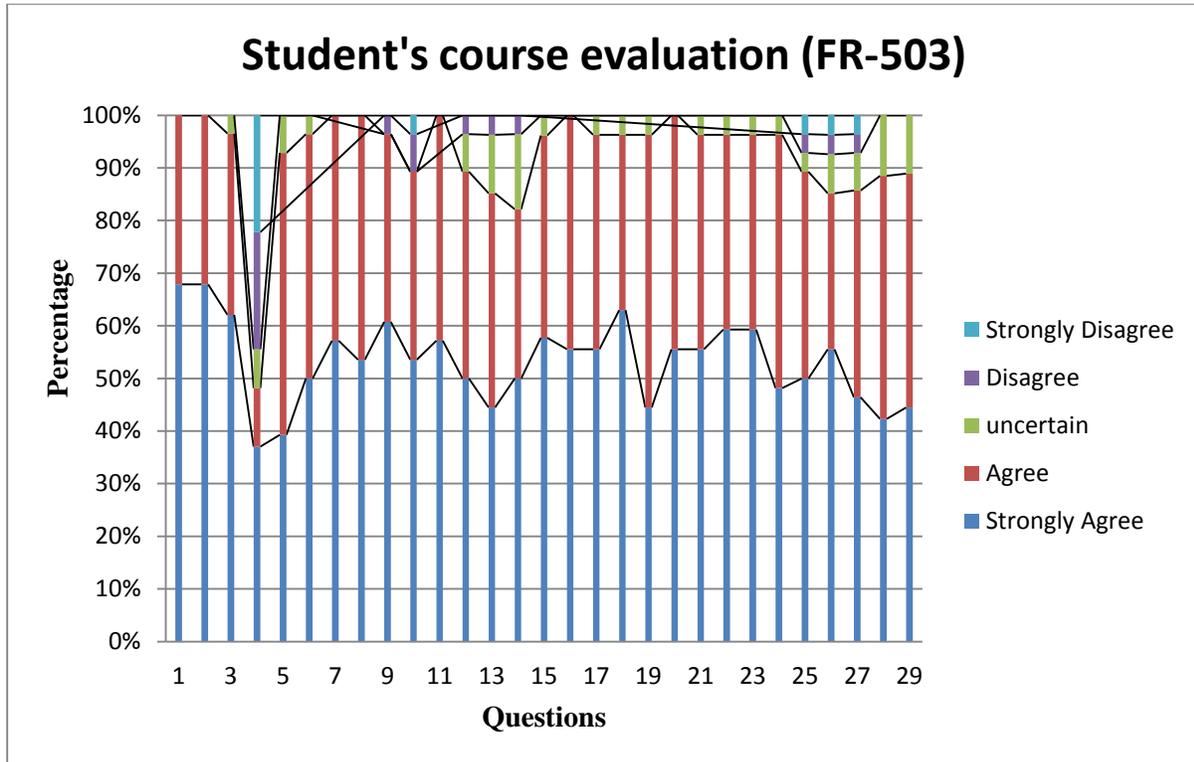


LEGEND

1. Course objective were clear.
2. Course workload were easily manageable.
3. Course well organized
4. Approximate level of own attendance in course.
5. Participated actively in course.
6. I made progress in this course.
7. Course was well structured to achieve learning outcomes.
8. Learning and teaching methods encouraged participation.
9. Overall environment in class was conducive to learning.
10. Class rooms were satisfactory.
11. Learning material were relevant and useful.
12. Recommended reading books were relevant and appropriate.
13. Provision of learning resource in library was adequate and appropriate.
14. Course stimulated my interest and thought on subject.
15. Pace of course was appropriate.
16. Ideas and concepts were present clearly.
17. Method of assessment were reasonable.
18. Feedback on assessment was timely.
19. Feedback on assessment was helpful.
20. I understood the lectures.
21. Material was well organised and presented.
22. Instructor was responsive to student needs in problems.
23. Instructor was responsive to student needs in problems.
24. Had the instructor been regular throughout the course?
25. Material in the tutorial was useful.
26. I was happy with the amount of work needed for tutorial.
27. Tutor dealt effectively with my problems.
28. Material in the practicals was useful.
29. Demonstrator dealt effectively with my problems

Mr. Saeed Gulzar-Lecturer (FR 503)

The course entitled “Principle of Agroferestry” was taught by Mr. Saeed Gulzar and was evaluated by the students through proforma no: 1. The perception of the student for this course is well defined in the following graph.

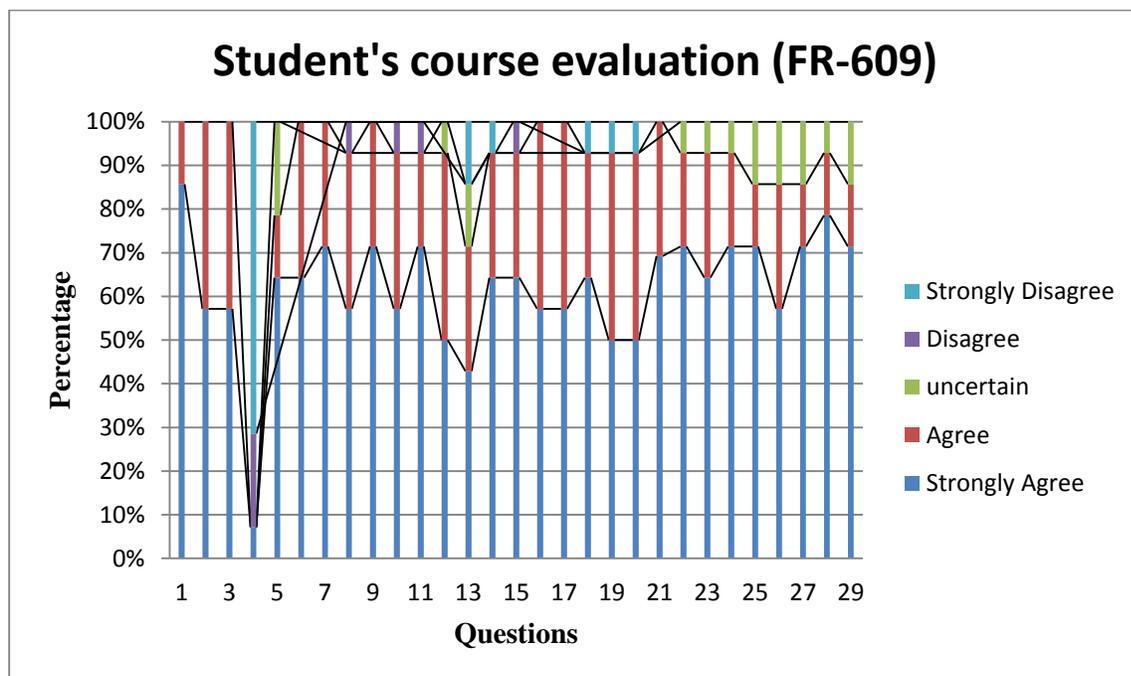


LEGEND

1. Course objective were clear.
2. Course workload were easily manageable.
3. Course well organized
4. Approximate level of own attendance in course.
5. Participated actively in course.
6. I made progress in this course.
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15. Pace of course was appropriate.
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23. Instructor was responsive to student needs in problems.
24. Had the instructor been regular throughout the course?
25. Material in the tutorial was useful.
26. I was happy with the amount of work needed for tutorial.
27. Tutor dealt effectively with my problems.
28. Material in the practicals was useful.
29. Demonstrator dealt effectively with my problems

Dr. Aamir Saleem-Assistant Professor (FR 609)

The course entitled “Project Planning and Scientific Writing” was taught by Dr. Aamir Saleem and was evaluated by the students through proforma no: 1. The perception of the student for this course is well defined in the following graph.

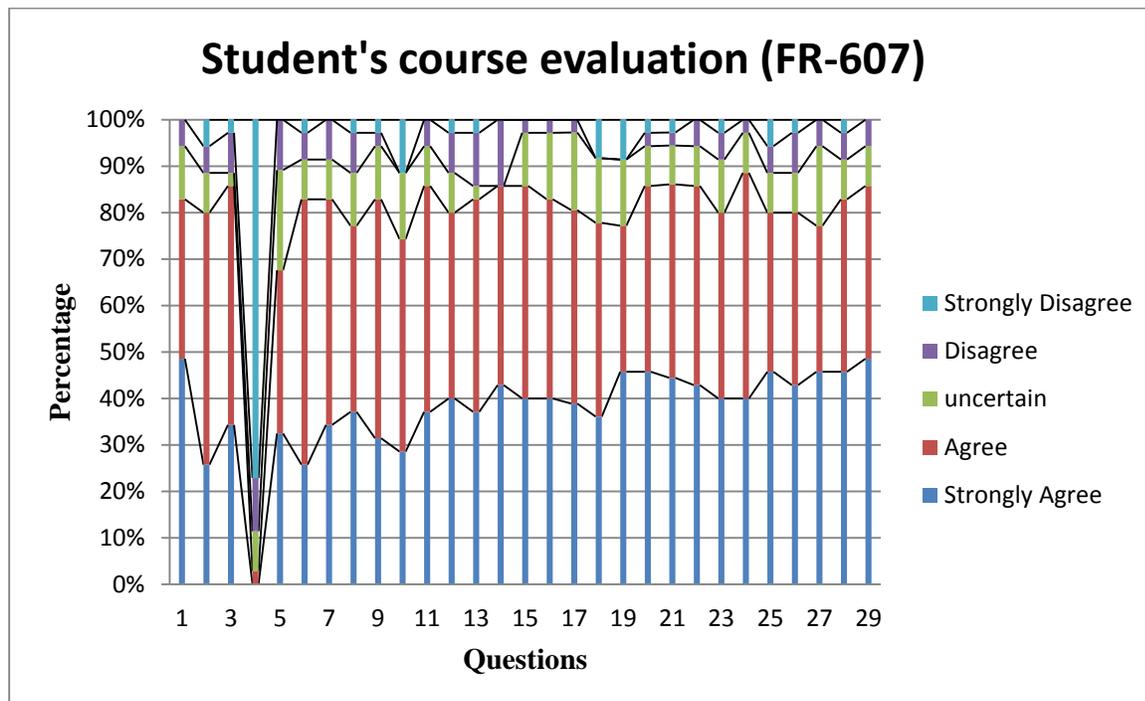


LEGEND

1. Course objective were clear.
2. Course workload were easily manageable.
3. Course well organized
4. Approximate level of own attendance in course.
5. Participated actively in course.
6. I made progress in this course.
7. Course was well structured to achieve learning outcomes.
8. Learning and teaching methods encouraged participation.
9. Overall environment in class was conducive to learning.
10. Class rooms were satisfactory.
11. Learning material were relevant and useful.
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13. Provision of learning resource in library was adequate and appropriate.
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24. Had the instructor been regular throughout the course?
25. Material in the tutorial was useful.
26. I was happy with the amount of work needed for tutorial.
27. Tutor dealt effectively with my problems.
28. Material in the practicals was useful.
29. Demonstrator dealt effectively with my problems

Dr. Irshad Ahmad Khan (FR 607)

The course entitled “Range Medicinal and Poisonal Plants” was taught by Dr. Irshad A. Khan and was evaluated by the students through proforma no: 1. The perception of the student for this course is well defined in the following graph.

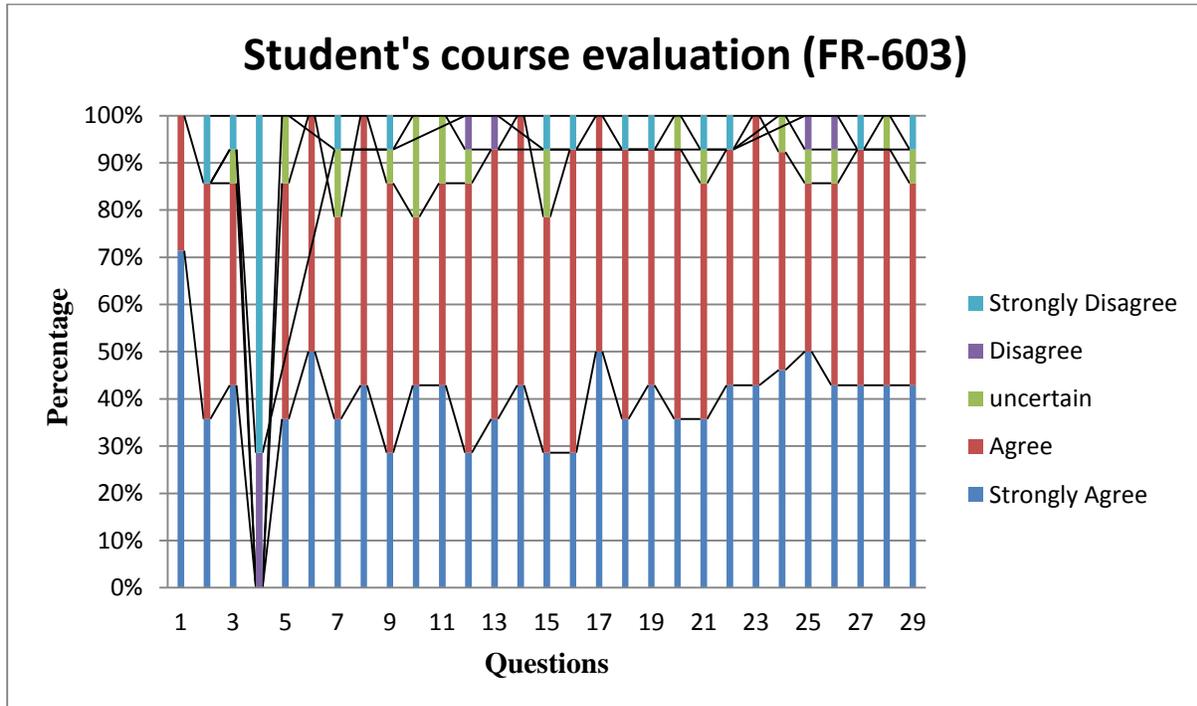


LEGEND

1. Course objective were clear.
2. Course workload were easily manageable.
3. Course well organized
4. Approximate level of own attendance in course.
5. Participated actively in course.
6. I made progress in this course.
7. Course was well structured to achieve learning outcomes.
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22. Instructor was responsive to student needs in problems.
23. Instructor was responsive to student needs in problems.
24. Had the instructor been regular throughout the course?
25. Material in the tutorial was useful.
26. I was happy with the amount of work needed for tutorial.
27. Tutor dealt effectively with my problems.
28. Material in the practicals was useful.
29. Demonstrator dealt effectively with my problems

Dr. Abdul Khaliq- Assistant Professor (FR 603)

The course entitled “Forest Timber Science” was taught by Dr. Abdul Khaliq and was evaluated by the students through proforma no: 1. The perception of the student for this course is well defined in the following graph.

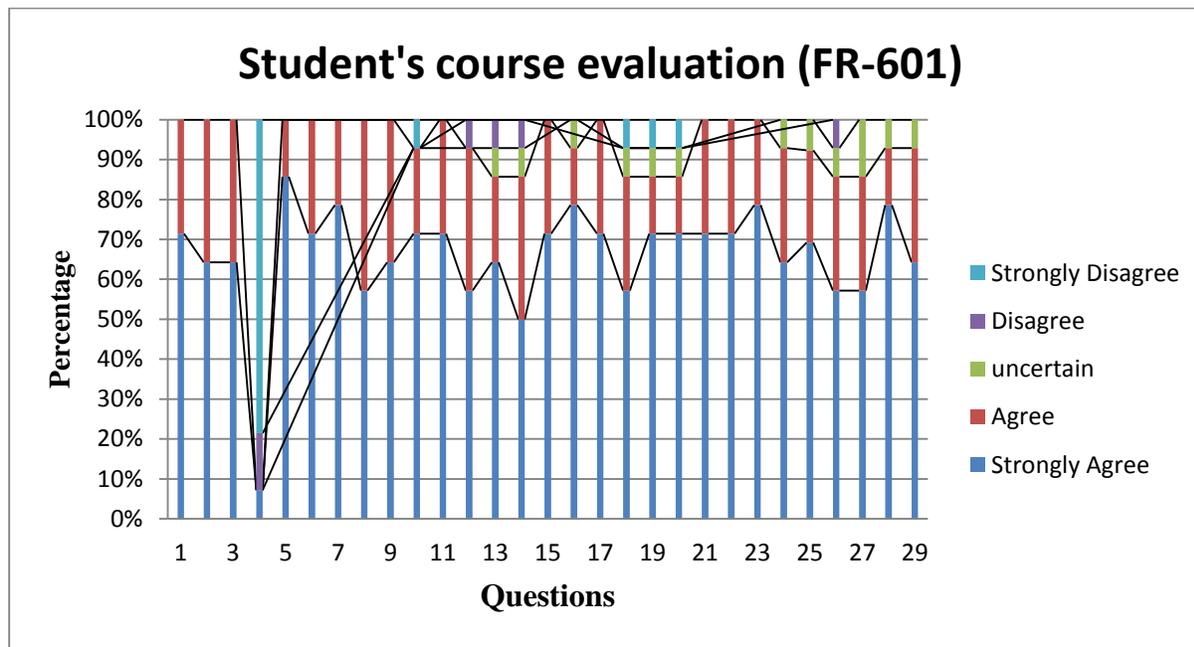


LEGEND

1. Course objective were clear.
2. Course workload were easily manageable.
3. Course well organized
4. Approximate level of own attendance in course.
5. Participated actively in course.
6. I made progress in this course.
7. Course was well structured to achieve learning outcomes.
8. Learning and teaching methods encouraged participation.
9. Overall environment in class was conducive to learning.
10. Class rooms were satisfactory.
11. Learning material were relevant and useful.
12. Recommended reading books were relevant and appropriate.
13. Provision of learning resource in library was adequate and appropriate.
14. Course stimulated my interest and thought on subject.
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16. Ideas and concepts were present clearly.
17. Method of assessment were reasonable.
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22. Instructor was responsive to student needs in problems.
23. Instructor was responsive to student needs in problems.
24. Had the instructor been regular throughout the course?
25. Material in the tutorial was useful.
26. I was happy with the amount of work needed for tutorial.
27. Tutor dealt effectively with my problems.
28. Material in the practicals was useful.
29. Demonstrator dealt effectively with my problems

Ms. Lubna Ansari- Lecturer (FR 601)

The course entitled “Range Improvement and Rehabilitaion” was taught by Ms. Lubna Ansari and was evaluated by the students through proforma no: 1. The perception of the student for this course is well defined in the following graph.

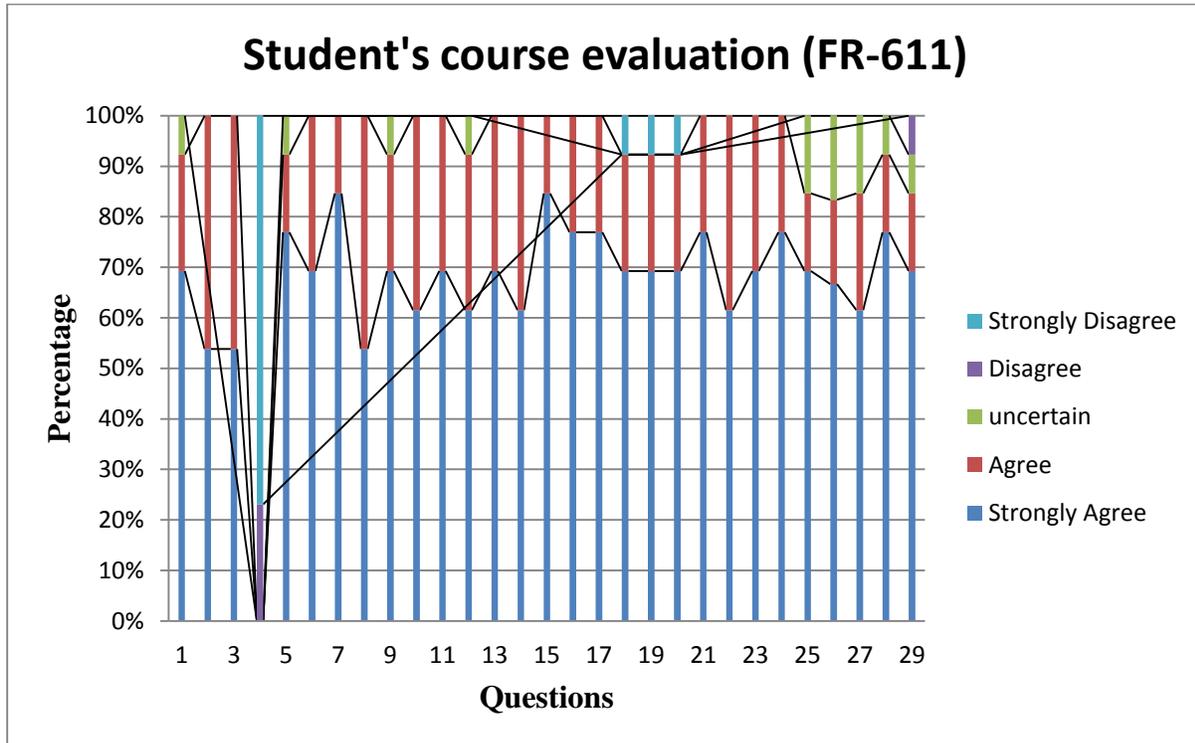


LEGEND

1. Course objective were clear.
2. Course workload were easily manageable.
3. Course well organized
4. Approximate level of own attendance in course.
5. Participated actively in course.
6. I made progress in this course.
7. Course was well structured to achieve learning outcomes.
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17. Method of assessment were reasonable.
18. Feedback on assessment was timely.
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21. Material was well organised and presented.
22. Instructor was responsive to student needs in problems.
23. Instructor was responsive to student needs in problems.
24. Had the instructor been regular throughout the course?
25. Material in the tutorial was useful.
26. I was happy with the amount of work needed for tutorial.
27. Tutor dealt effectively with my problems.
28. Material in the practicals was useful.
29. Demonstrator dealt effectively with my problems

Mr. Saeed Gulzar- Lecturer (FR 611)

The course entitled “Forest Law and Policy” was taught by Mr. Saeed Gulzar and was evaluated by the students through proforma no: 1. The perception of the student for this course is well defined in the following graph.

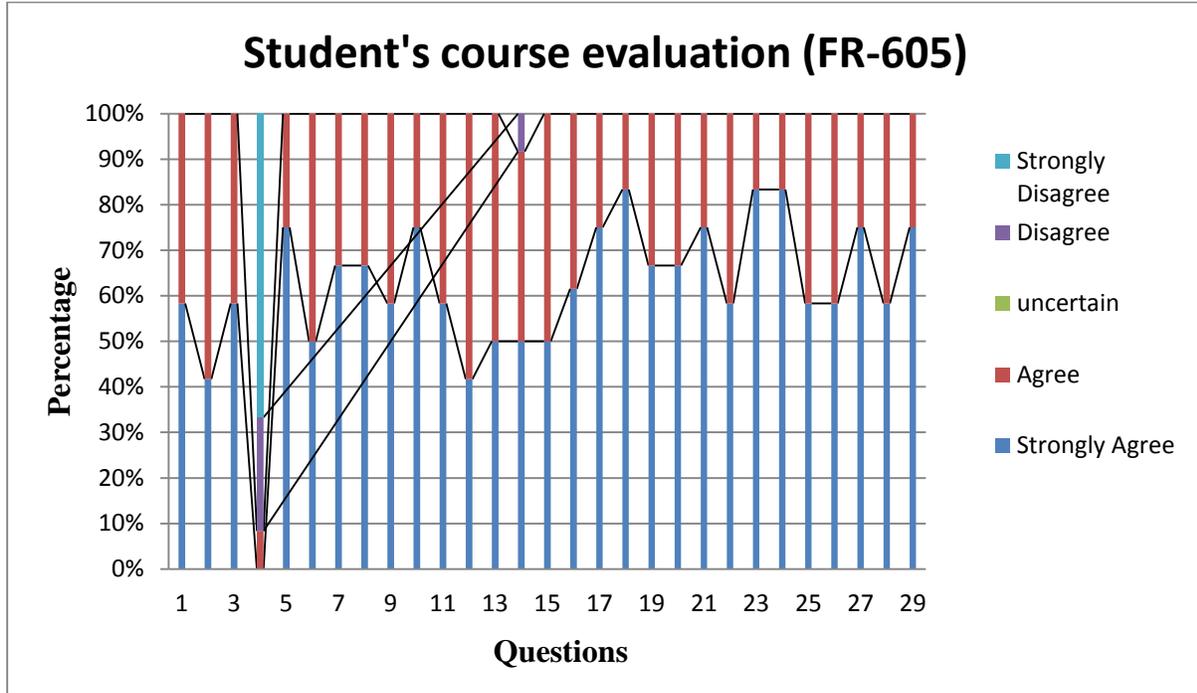


LEGEND

1. Course objective were clear.
2. Course workload were easily manageable.
3. Course well organized
4. Approximate level of own attendance in course.
5. Participated actively in course.
6. I made progress in this course.
7. Course was well structured to achieve learning outcomes.
8. Learning and teaching methods encouraged participation.
9. Overall environment in class was conducive to learning.
10. Class rooms were satisfactory.
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18. Feedback on assessment was timely.
19. Feedback on assessment was helpful.
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21. Material was well organised and presented.
22. Instructor was responsive to student needs in problems.
23. Instructor was responsive to student needs in problems.
24. Had the instructor been regular throughout the course?
25. Material in the tutorial was useful.
26. I was happy with the amount of work needed for tutorial.
27. Tutor dealt effectively with my problems.
28. Material in the practicals was useful.
29. Demonstrator dealt effectively with my problems

Dr. Aamir Saleem- Assistant Professor (FR 605)

The course entitled “Range Medicinal and Poisonal Plants” was taught by Dr. Irshad A. Khan and was evaluated by the students through proforma no: 1. The perception of the student for this course is well defined in the following graph.

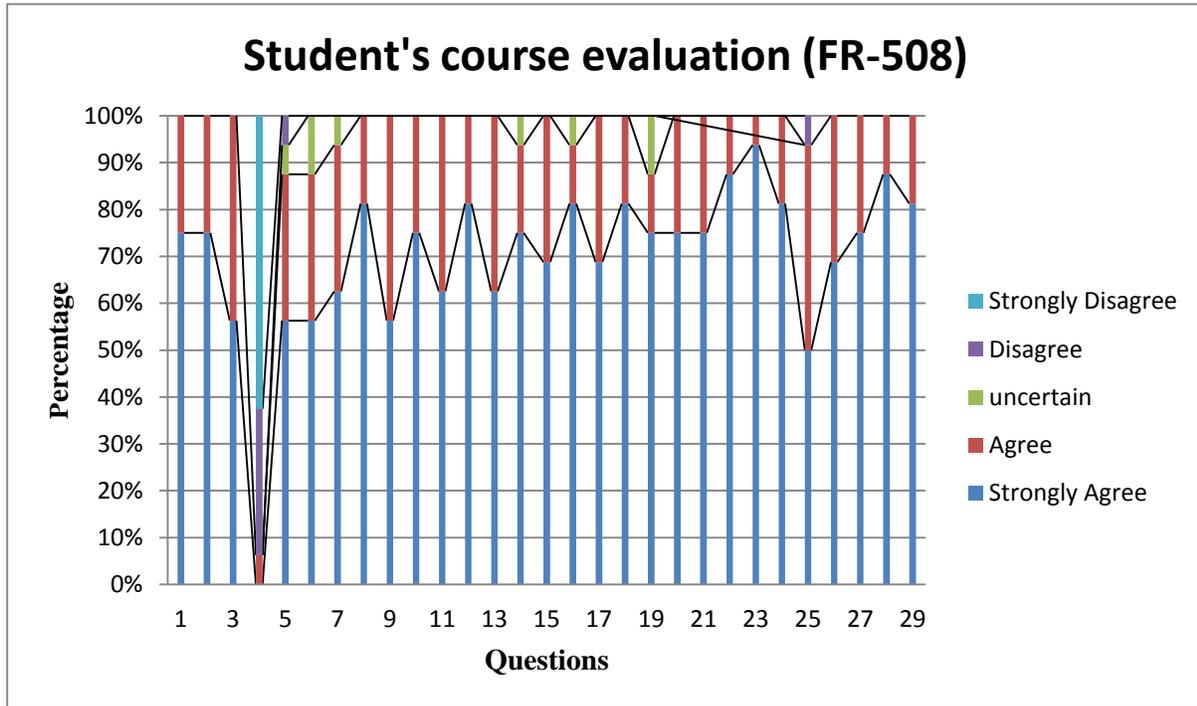


LEGEND

- | | |
|-----------------------------------------------------------------------------|--------------------------------------------------------------|
| 1. Course objective were clear. | 2. Course workload were easily manageable. |
| 3. Course well organized | 4. Approximate level of own attendance in course. |
| 5. Participated actively in course. | 6. I made progress in this course. |
| 7. Course was well structured to achieve learning outcomes. | 8. Learning and teaching methods encouraged participation. |
| 9. Overall environment in class was conducive to learning. | 10. Class rooms were satisfactory. |
| 11. Learning material were relevant and useful. | 12. Recommended reading books were relevant and appropriate. |
| 13. Provision of learning resource in library was adequate and appropriate. | 14. Course stimulated my interest and thought on subject. |
| 15. Pace of course was appropriate. | 16. Ideas and concepts were present clearly. |
| 17. Method of assessment was reasonable. | 18. Feedback on assessment was timely. |
| 19. Feedback on assessment was helpful. | 20. I understood the lectures. |
| 21. Material was well organised and presented. | 22. Instructor was responsive to student needs in problems. |
| 23. Instructor was responsive to student needs in problems. | 24. Had the instructor been regular throughout the course? |
| 25. Material in the tutorial was useful. | 26. I was happy with the amount of work needed for tutorial. |
| 27. Tutor dealt effectively with my problems. | 28. Material in the practical was useful. |
| 29. Demonstrator dealt effectively with my problems | |

Ms. Lubna Ansari- Lecturer (FR 508)

The course entitled “Range Vegetation and Livestock Interaction” was taught by Ms. Lubna Ansari and was evaluated by the students through proforma no: 1. The perception of the student for this course is well defined in the following graph.

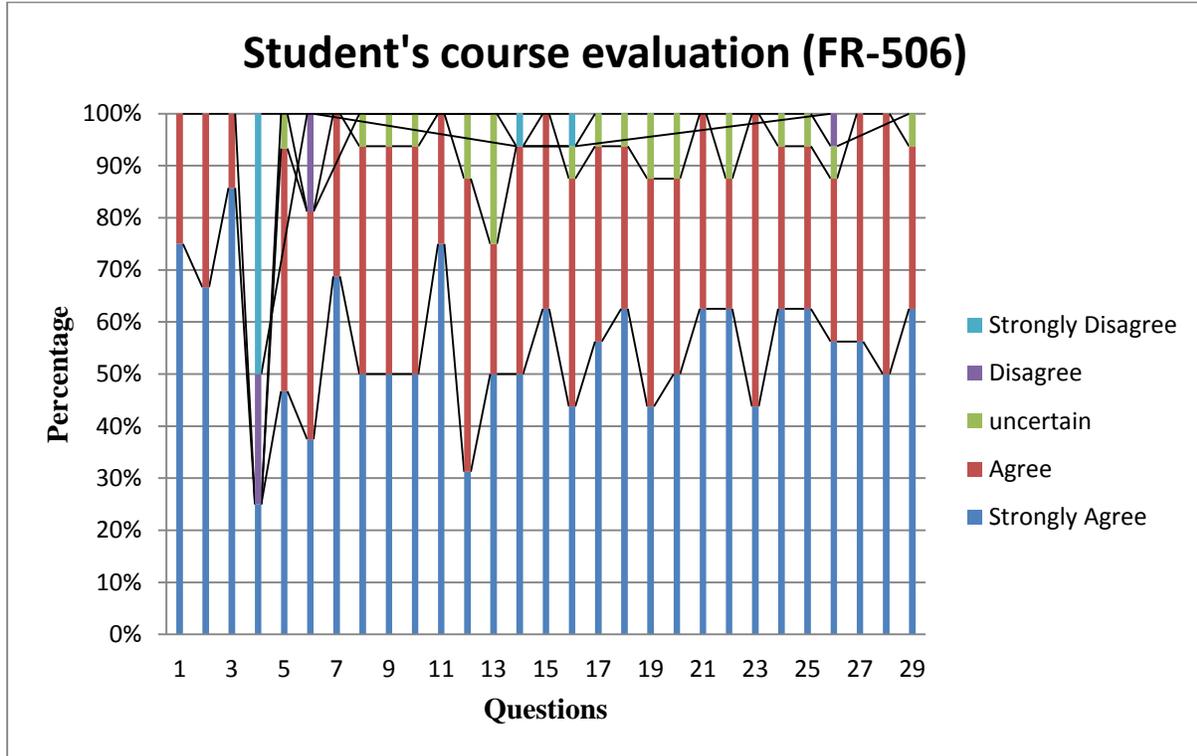


LEGEND

1. Course objective were clear.
2. Course workload were easily manageable.
3. Course well organized
4. Approximate level of own attendance in course.
5. Participated actively in course.
6. I made progress in this course.
7. Course was well structured to achieve learning outcomes.
8. Learning and teaching methods encouraged participation.
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11. Learning material were relevant and useful.
12. Recommended reading books were relevant and appropriate.
13. Provision of learning resource in library was adequate and appropriate.
14. Course stimulated my interest and thought on subject.
15. Pace of course was appropriate.
16. Ideas and concepts were present clearly.
17. Method of assessment were reasonable.
18. Feedback on assessment was timely.
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22. Instructor was responsive to student needs in problems.
23. Instructor was responsive to student needs in problems.
24. Had the instructor been regular throughout the course?
25. Material in the tutorial was useful.
26. I was happy with the amount of work needed for tutorial.
27. Tutor dealt effectively with my problems.
28. Material in the practicals was useful.
29. Demonstrator dealt effectively with my problems

Mr. Saeed Gulzar- Lecturer (FR 506)

The course entitled “Range Biodiversity and Environment” was taught by Mr. Saeed Gulzar and was evaluated by the students through proforma no: 1. The perception of the student for this course is well defined in the following graph.

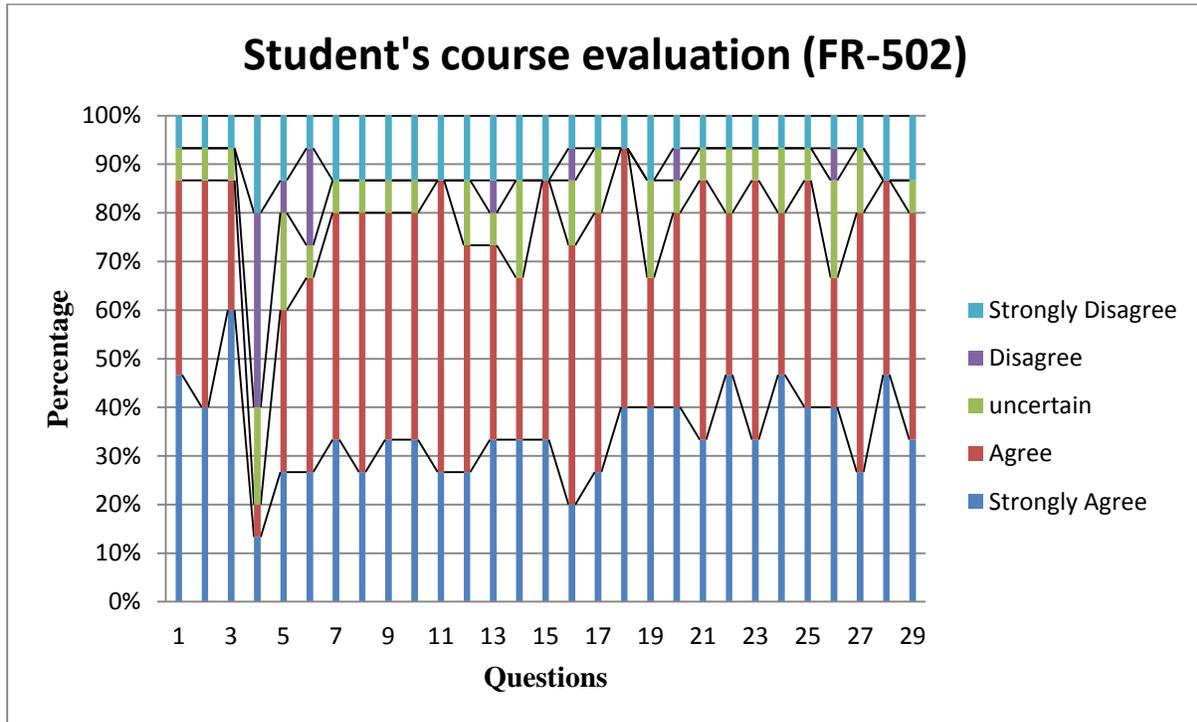


LEGEND

1. Course objective were clear.
2. Course workload were easily manageable.
3. Course well organized
4. Approximate level of own attendance in course.
5. Participated actively in course.
6. I made progress in this course.
7. Course was well structured to achieve learning outcomes.
8. Learning and teaching methods encouraged participation.
9. Overall environment in class was conducive to learning.
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11. Learning material were relevant and useful.
12. Recommended reading books were relevant and appropriate.
13. Provision of learning resource in library was adequate and appropriate.
14. Course stimulated my interest and thought on subject.
15. Pace of course was appropriate.
16. Ideas and concepts were present clearly.
17. Method of assessment were reasonable.
18. Feedback on assessment was timely.
19. Feedback on assessment was helpful.
20. I understood the lectures.
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22. Instructor was responsive to student needs in problems.
23. Instructor was responsive to student needs in problems.
24. Had the instructor been regular throughout the course?
25. Material in the tutorial was useful.
26. I was happy with the amount of work needed for tutorial.
27. Tutor dealt effectively with my problems.
28. Material in the practicals was useful.
29. Demonstrator dealt effectively with my problems

Dr. Irshad Ahmad Khan- Associate Professor (FR 502)

The course entitled “Forest Protection” was taught by Dr. Irshad Ahmad Khan and was evaluated by the students through proforma no: 1. The perception of the student for this course is well defined in the following graph.

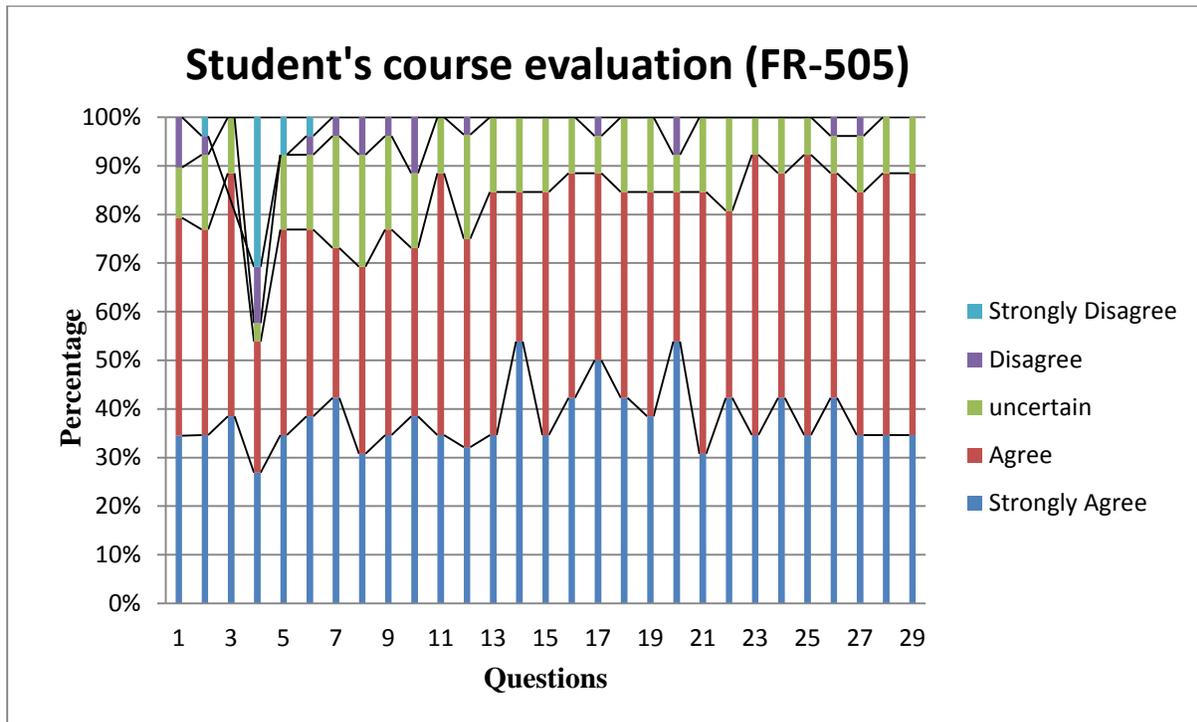


LEGEND

1. Course objective were clear.
2. Course workload were easily manageable.
3. Course well organized
4. Approximate level of own attendance in course.
5. Participated actively in course.
6. I made progress in this course.
7. Course was well structured to achieve learning outcomes.
8. Learning and teaching methods encouraged participation.
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13. Provision of learning resource in library was adequate and appropriate.
14. Course stimulated my interest and thought on subject.
15. Pace of course was appropriate.
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17. Method of assessment were reasonable.
18. Feedback on assessment was timely.
19. Feedback on assessment was helpful.
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22. Instructor was responsive to student needs in problems.
23. Instructor was responsive to student needs in problems.
24. Had the instructor been regular throughout the course?
25. Material in the tutorial was useful.
26. I was happy with the amount of work needed for tutorial.
27. Tutor dealt effectively with my problems.
28. Material in the practicals was useful.
29. Demonstrator dealt effectively with my problems

Dr. Irshad Ahmad Khan- Associate Professor (FR 505)

The course entitled “Range Management” was taught by Dr. Irshad A. Khan and was evaluated by the students through proforma no: 1. The perception of the students for this course is well defined in the following graph.

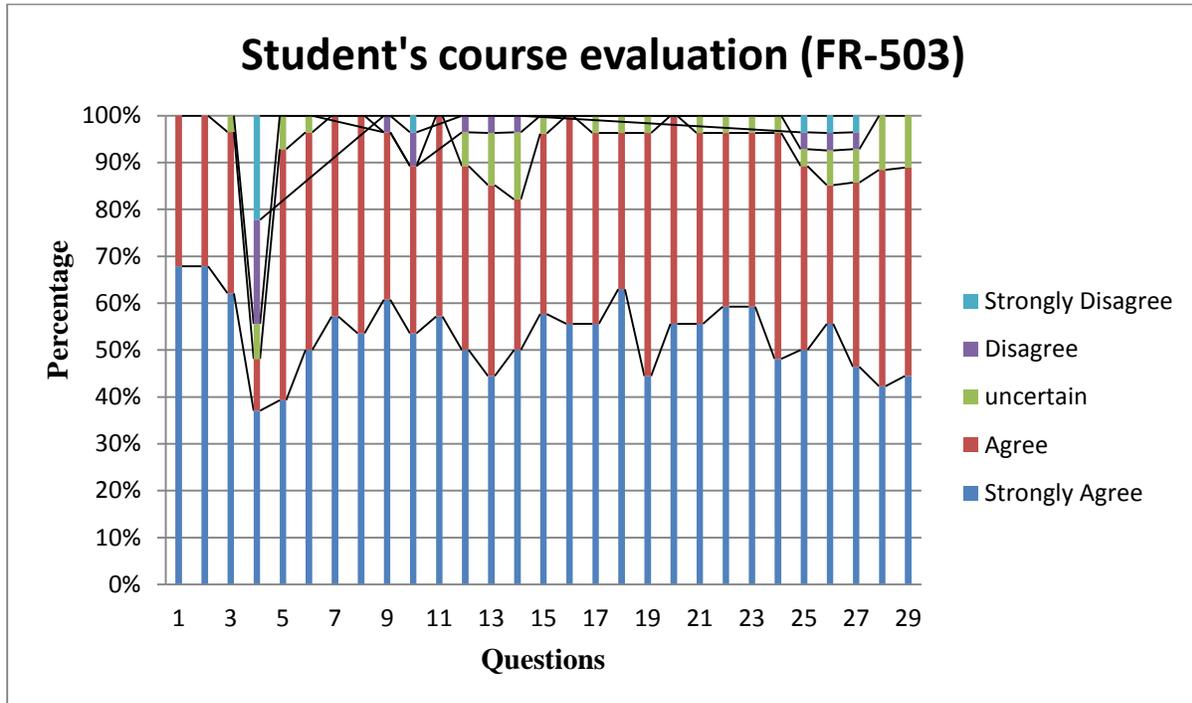


LEGEND

1. Course objective were clear.
2. Course workload were easily manageable.
3. Course well organized
4. Approximate level of own attendance in course.
5. Participated actively in course.
6. I made progress in this course.
7. Course was well structured to achieve learning outcomes.
8. Learning and teaching methods encouraged participation.
9. Overall environment in class was conducive to learning.
10. Class rooms were satisfactory.
11. Learning material were relevant and useful.
12. Recommended reading books were relevant and appropriate.
13. Provision of learning resource in library was adequate and appropriate.
14. Course stimulated my interest and thought on subject.
15. Pace of course was appropriate.
16. Ideas and concepts were present clearly.
17. Method of assessment were reasonable.
18. Feedback on assessment was timely.
19. Feedback on assessment was helpful.
20. I understood the lectures.
21. Material was well organised and presented.
22. Instructor was responsive to student needs in problems.
23. Instructor was responsive to student needs in problems.
24. Had the instructor been regular throughout the course?
25. Material in the tutorial was useful.
26. I was happy with the amount of work needed for tutorial.
27. Tutor dealt effectively with my problems.
28. Material in the practicals was useful.
29. Demonstrator dealt effectively with my problems

Mr. Saeed Gulzar- Lecturer (FR 503)

The course entitled “Principle of Agroforestry” was taught by Mr. Saeed Gulzar and was evaluated by the students through proforma no: 1. The perception of the student for this course is well defined in the following graph.

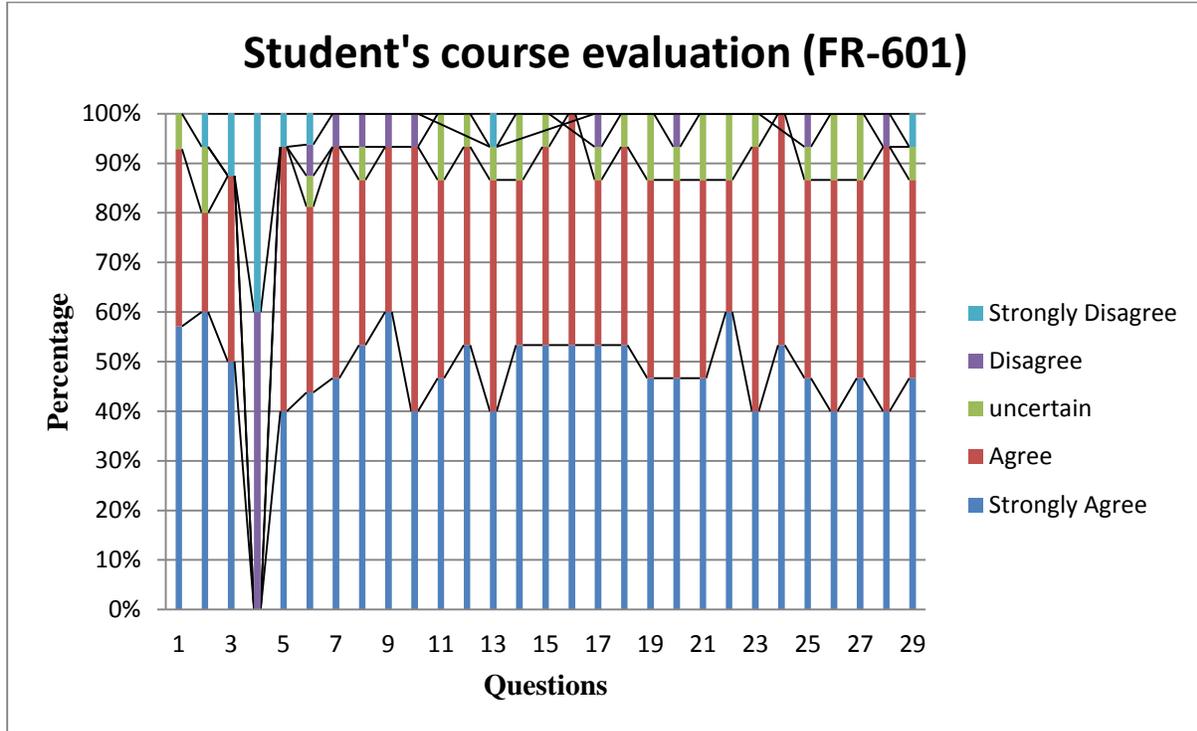


LEGEND

1. Course objective were clear.
2. Course workload were easily manageable.
3. Course well organized
4. Approximate level of own attendance in course.
5. Participated actively in course.
6. I made progress in this course.
7. Course was well structured to achieve learning outcomes.
8. Learning and teaching methods encouraged participation.
9. Overall environment in class was conducive to learning.
10. Class rooms were satisfactory.
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13. Provision of learning resource in library was adequate and appropriate.
14. Course stimulated my interest and thought on subject.
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17. Method of assessment were reasonable.
18. Feedback on assessment was timely.
19. Feedback on assessment was helpful.
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22. Instructor was responsive to student needs in problems.
23. Instructor was responsive to student needs in problems.
24. Had the instructor been regular throughout the course?
25. Material in the tutorial was useful.
26. I was happy with the amount of work needed for tutorial.
27. Tutor dealt effectively with my problems.
28. Material in the practicals was useful.
29. Demonstrator dealt effectively with my problems

Dr. Irshad Ahmad Khan- Associate Professor (601)

The course entitled “Range Improvement and Rehabilitation” was taught by Dr. Irshad Ahmad Khan and was evaluated by the students through proforma no: 1. The perception of the student for this course is well defined in the following graph.

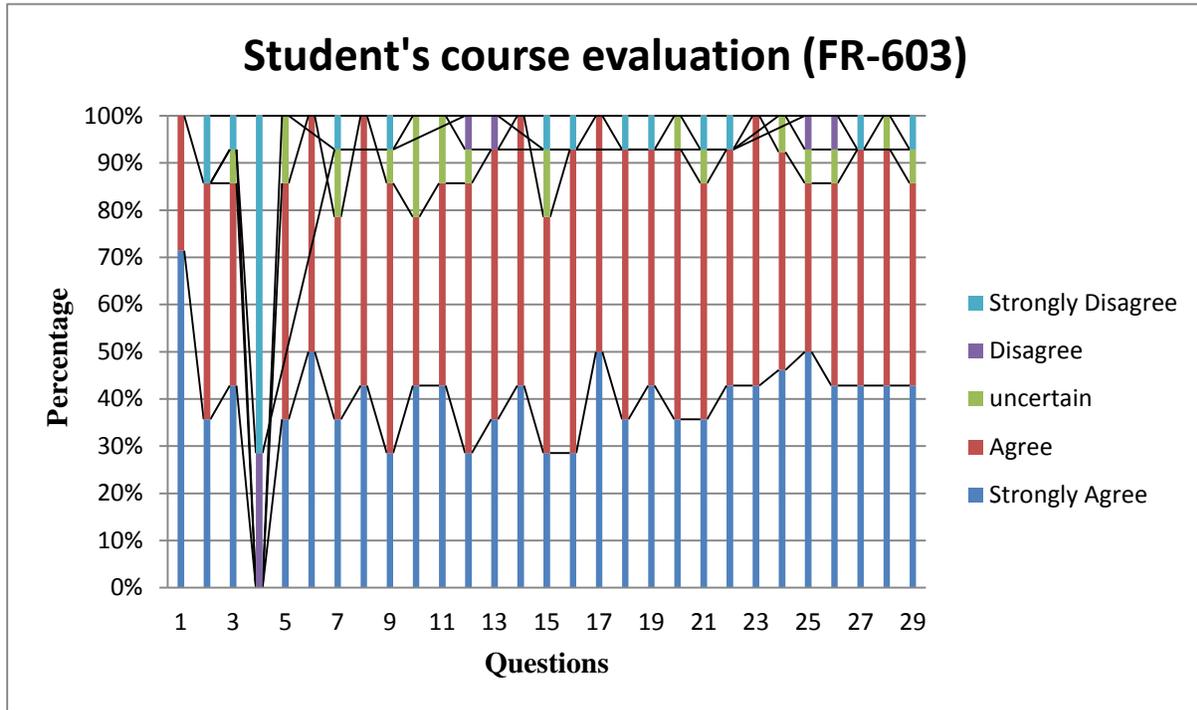


LEGEND

1. Course objective were clear.
2. Course workload were easily manageable.
3. Course well organized
4. Approximate level of own attendance in course.
5. Participated actively in course.
6. I made progress in this course.
7. Course was well structured to achieve learning outcomes.
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24. Had the instructor been regular throughout the course?
25. Material in the tutorial was useful.
26. I was happy with the amount of work needed for tutorial.
27. Tutor dealt effectively with my problems.
28. Material in the practicals was useful.
29. Demonstrator dealt effectively with my problems

Ms. Lubna Ansari- Lecturer (FR 603)

The course entitled “Forest Timber Science” was taught by Ms. Lubna Ansari and was evaluated by the students through proforma no: 1. The perception of the student for this course is well defined in the following graph.

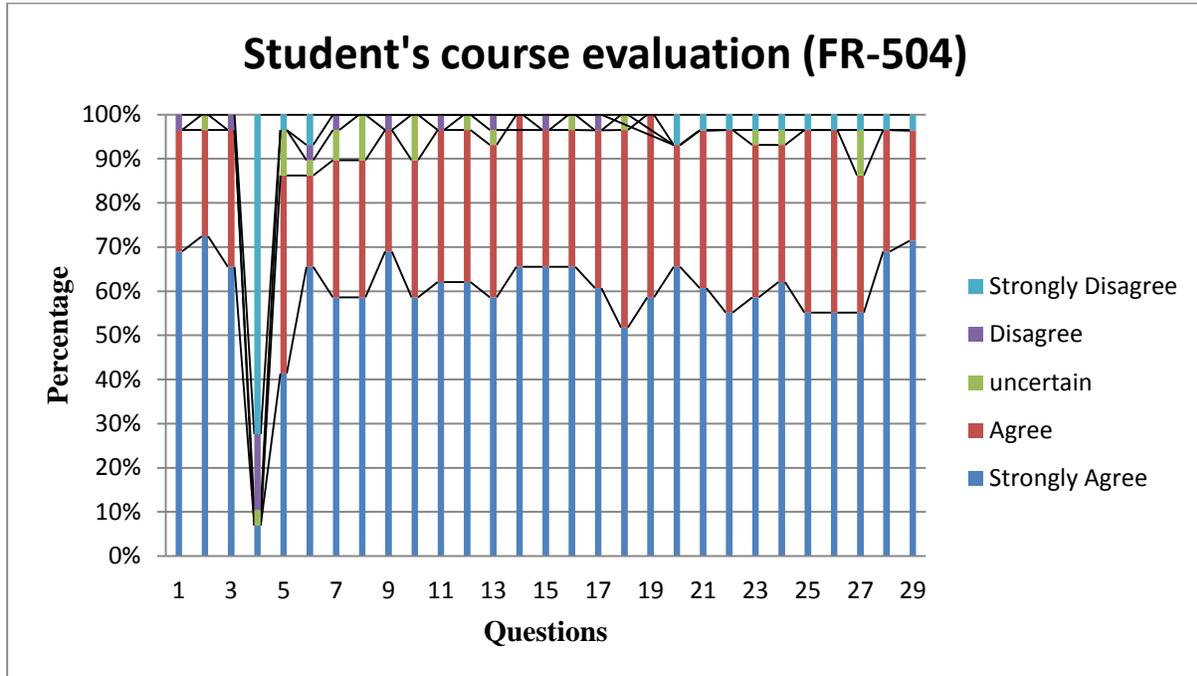


LEGEND

1. Course objective were clear.
2. Course workload were easily manageable.
3. Course well organized
4. Approximate level of own attendance in course.
5. Participated actively in course.
6. I made progress in this course.
7. Course was well structured to achieve learning outcomes.
8. Learning and teaching methods encouraged participation.
9. Overall environment in class was conducive to learning.
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25. Material in the tutorial was useful.
26. I was happy with the amount of work needed for tutorial.
27. Tutor dealt effectively with my problems.
28. Material in the practicals was useful.
29. Demonstrator dealt effectively with my problems

Dr. Abdul Khaliq- Assistant Professor (FR 504)

The course entitled “Watershed Management ” was taught by Dr. Abdul Khaliq and was evaluated by the students through proforma no: 1. The perception of the student for this course is well defined in the following graph.

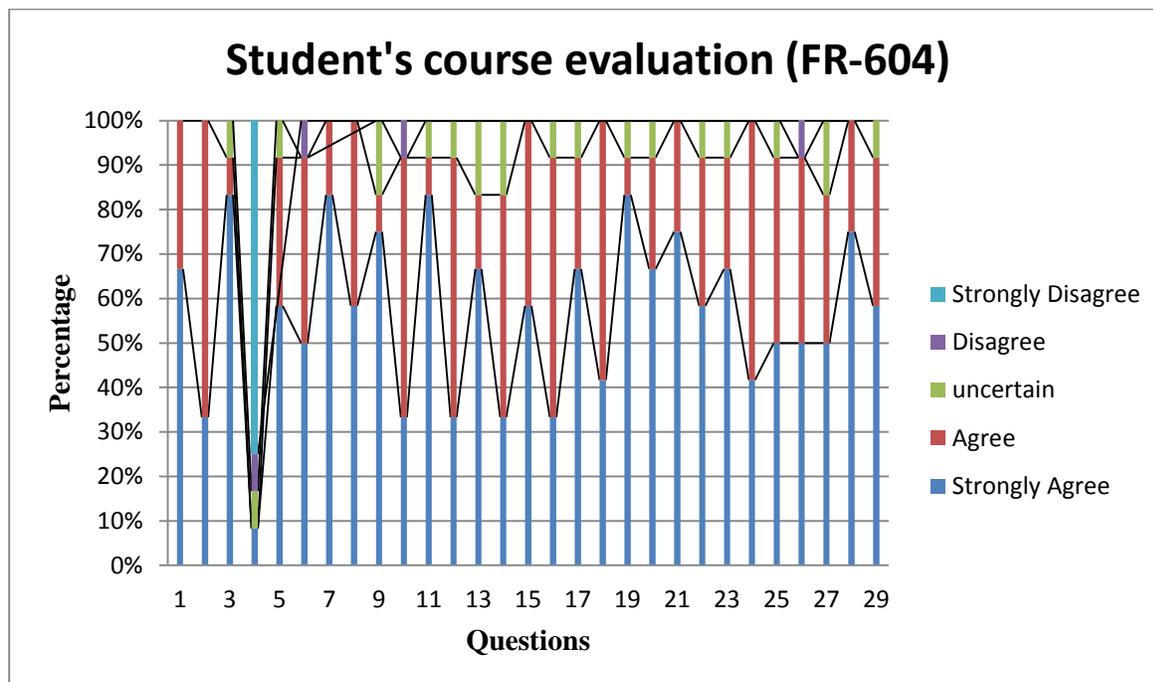


LEGEND

1. Course objective were clear.
2. Course workload were easily manageable.
3. Course well organized
4. Approximate level of own attendance in course.
5. Participated actively in course.
6. I made progress in this course.
7. Course was well structured to achieve learning outcomes.
8. Learning and teaching methods encouraged participation.
9. Overall environment in class was conducive to learning.
10. Class rooms were satisfactory.
11. Learning material were relevant and useful.
12. Recommended reading books were relevant and appropriate.
13. Provision of learning resource in library was adequate and appropriate.
14. Course stimulated my interest and thought on subject.
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16. Ideas and concepts were present clearly.
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24. Had the instructor been regular throughout the course?
25. Material in the tutorial was useful.
26. I was happy with the amount of work needed for tutorial.
27. Tutor dealt effectively with my problems.
28. Material in the practicals was useful.
29. Demonstrator dealt effectively with my problems

Dr. Syed Moazzam Nizami- Associate Professor (FR 604)

The course entitled “Forestry Inventory and Working Plan-II ” was taught by Dr. S. M Nizami and was evaluated by the students through proforma no: 1. The perception of the student for this course is well defined in the following graph.

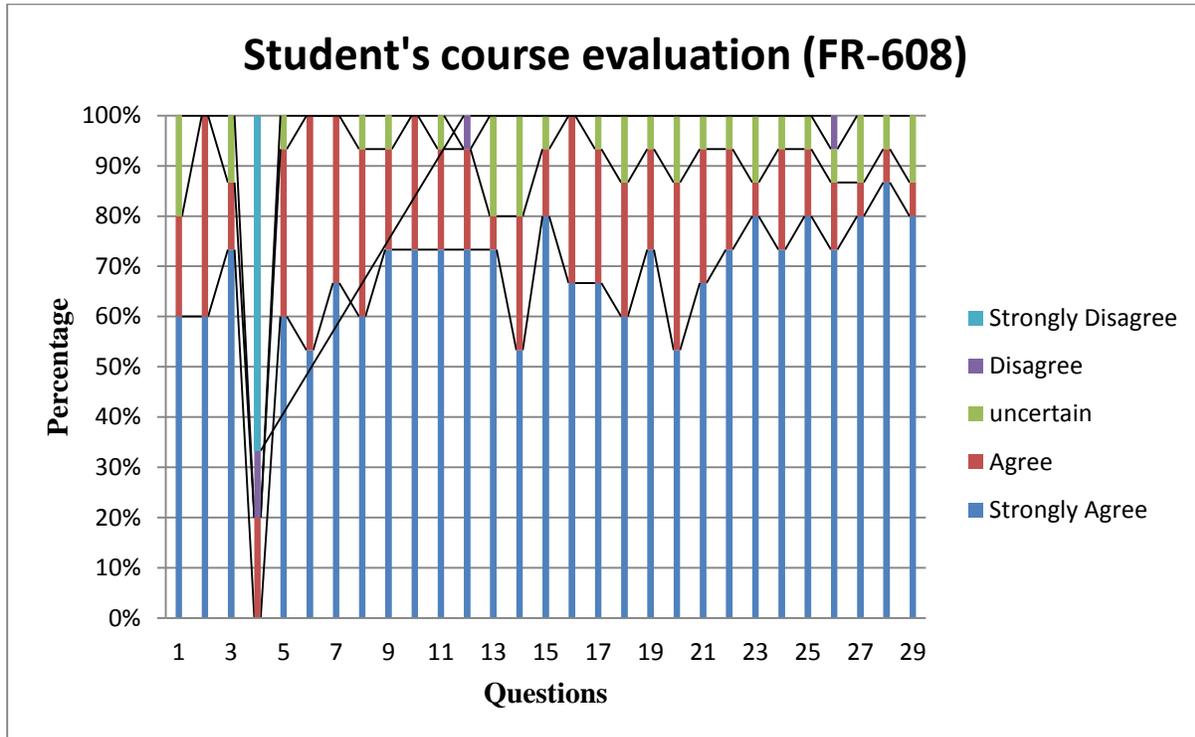


LEGEND

1. Course objective were clear.
2. Course workload were easily manageable.
3. Course well organized
4. Approximate level of own attendance in course.
5. Participated actively in course.
6. I made progress in this course.
7. Course was well structured to achieve learning outcomes.
8. Learning and teaching methods encouraged participation.
9. Overall environment in class was conducive to learning.
10. Class rooms were satisfactory.
11. Learning material were relevant and useful.
12. Recommended reading books were relevant and appropriate.
13. Provision of learning resource in library was adequate and appropriate.
14. Course stimulated my interest and thought on subject.
15. Pace of course was appropriate.
16. Ideas and concepts were present clearly.
17. Method of assessment were reasonable.
18. Feedback on assessment was timely.
19. Feedback on assessment was helpful.
20. I understood the lectures.
21. Material was well organised and presented.
22. Instructor was responsive to student needs in problems.
23. Instructor was responsive to student needs in problems.
24. Had the instructor been regular throughout the course?
25. Material in the tutorial was useful.
26. I was happy with the amount of work needed for tutorial.
27. Tutor dealt effectively with my problems.
28. Material in the practicals was useful.
29. Demonstrator dealt effectively with my problems

Dr. Aamir Saleem- Assistant Professor (FR 608)

The course entitled “Project Planning, Execution and Scientific Writing ” was taught by Dr. Aamir Saleem and was evaluated by the students through proforma no: 1. The perception of the student for this course is well defined in the following graph.

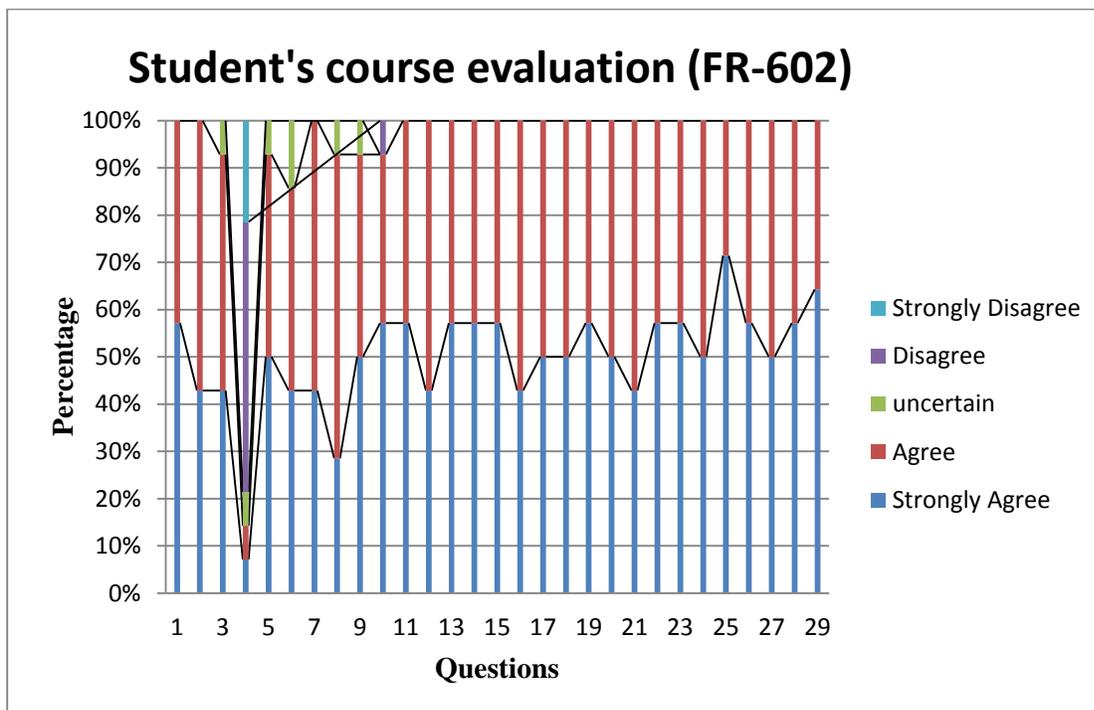


LEGEND

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27. Tutor dealt effectively with my problems.
28. Material in the practicals was useful.
29. Demonstrator dealt effectively with my problems

Dr. Syed Moazzam Nizami- Associate Professor (FR 602)

The course entitled “Forestry Inventory and Working Plan-I ” was taught by Dr. S. M Nizami and was evaluated by the students through proforma no: 1. The perception of the student for this course is well defined in the following graph.

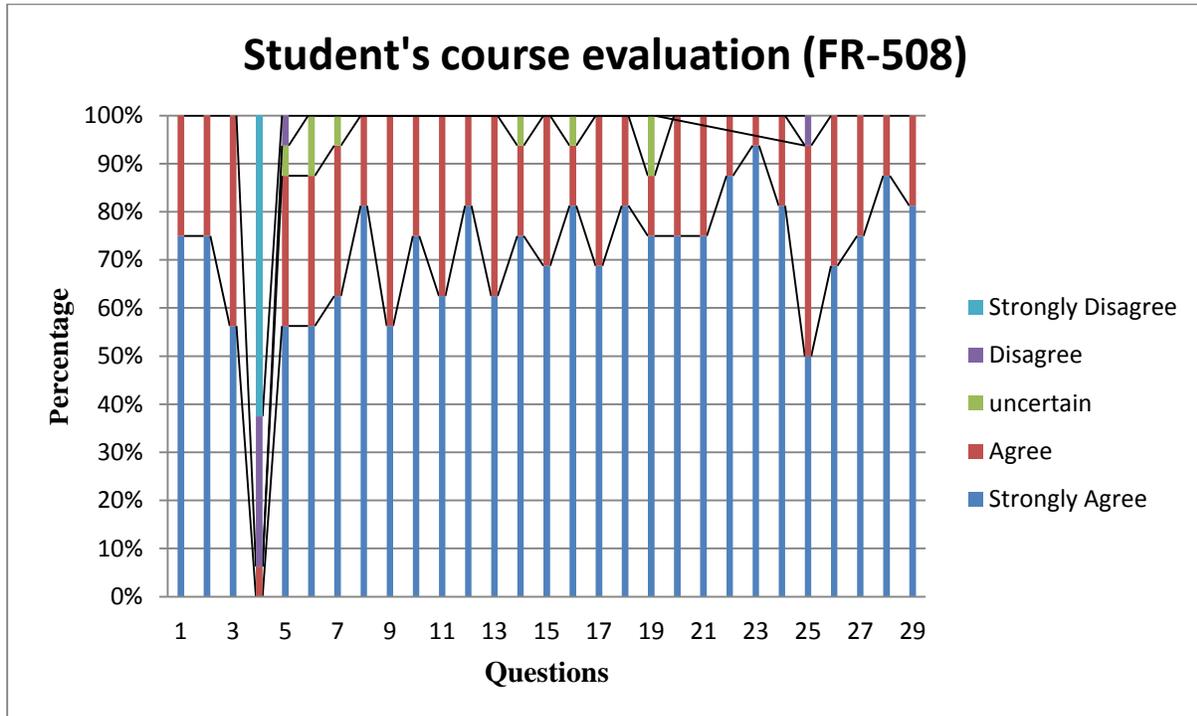


LEGEND

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29. Demonstrator dealt effectively with my problems

Ms. Lubna Ansari- Lecturer (FR 508)

The course entitled “Range Vegetation and Livestock Interaction ” was taught by Ms. Lubna Ansari and was evaluated by the students through proforma no: 1. The perception of the student for this course is well defined in the following graph.

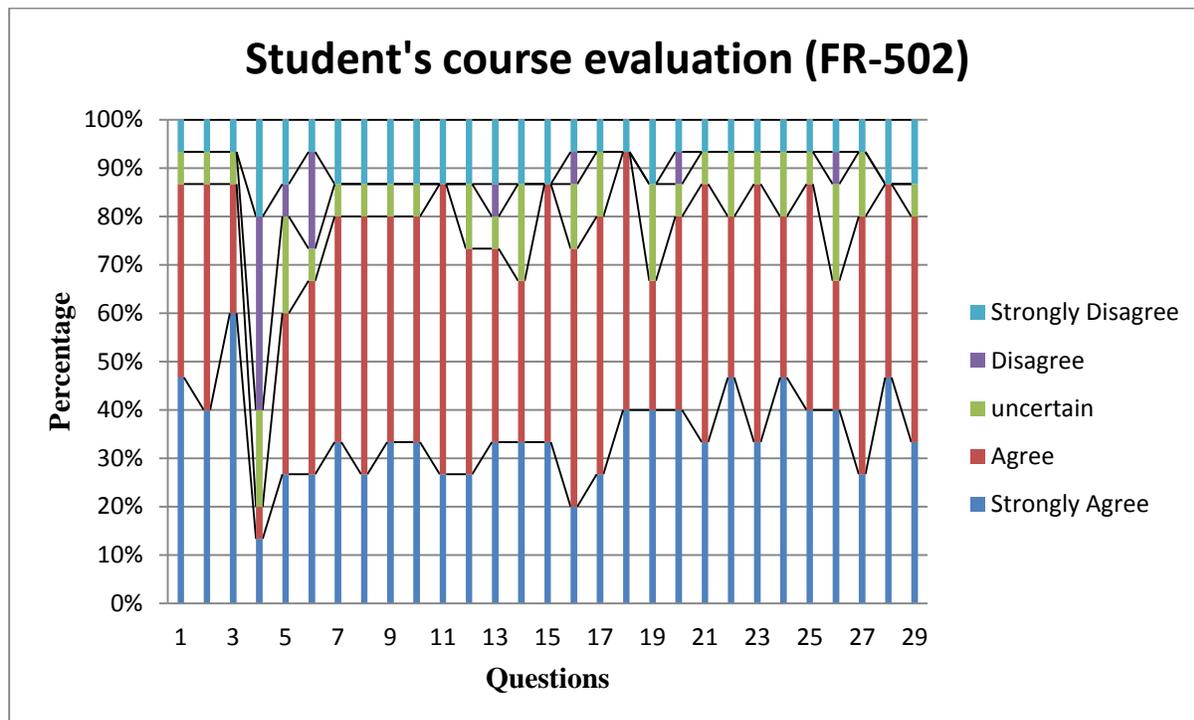


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29. Demonstrator dealt effectively with my problems

Dr. Irshad Ahmad Khan- Associate Professor (FR 502)

The course entitled “Forest Protection ” was taught by Dr. Irshad A. Khan and was evaluated by the students through proforma no: 1. The perception of the student for this course is well defined in the following graph.

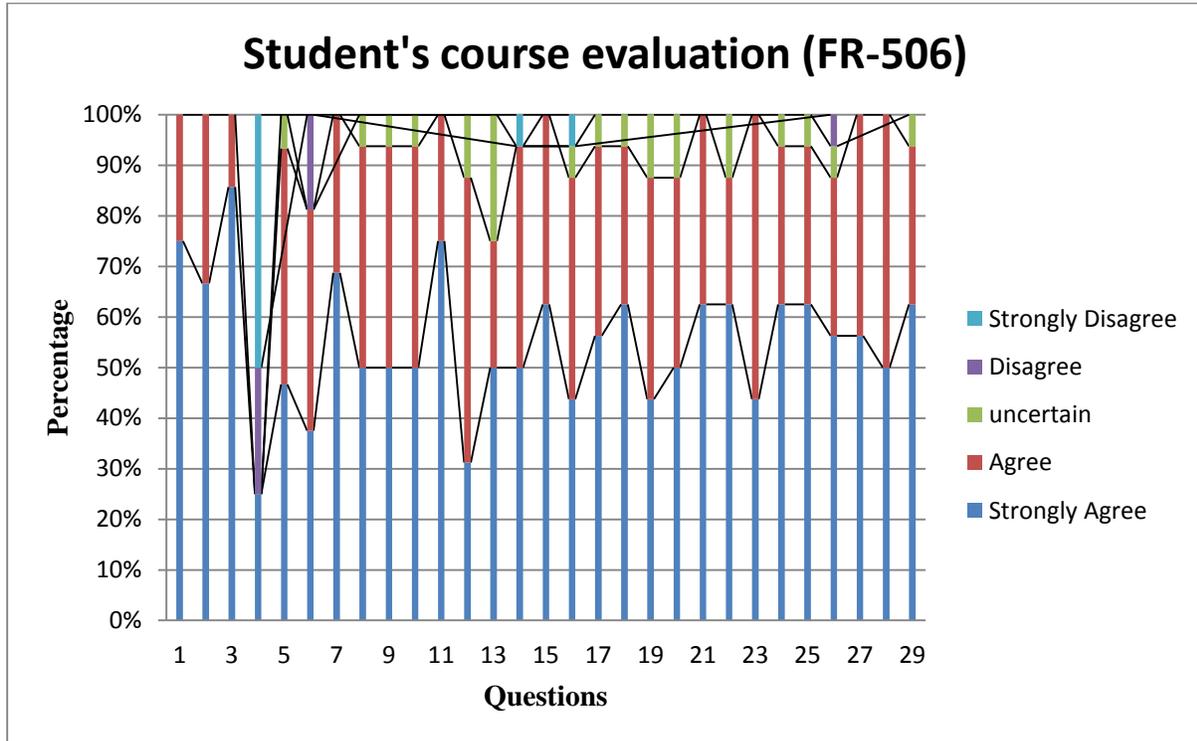


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29. Demonstrator dealt effectively with my problems

Mr. Saeed Gulzar- Lecturer (FR 506)

The course entitled “Range and Forest Biodiversity ” was taught by Mr. Saeed Gulzar and was evaluated by the students through proforma no: 1. The perception of the student for this course is well defined in the following graph.

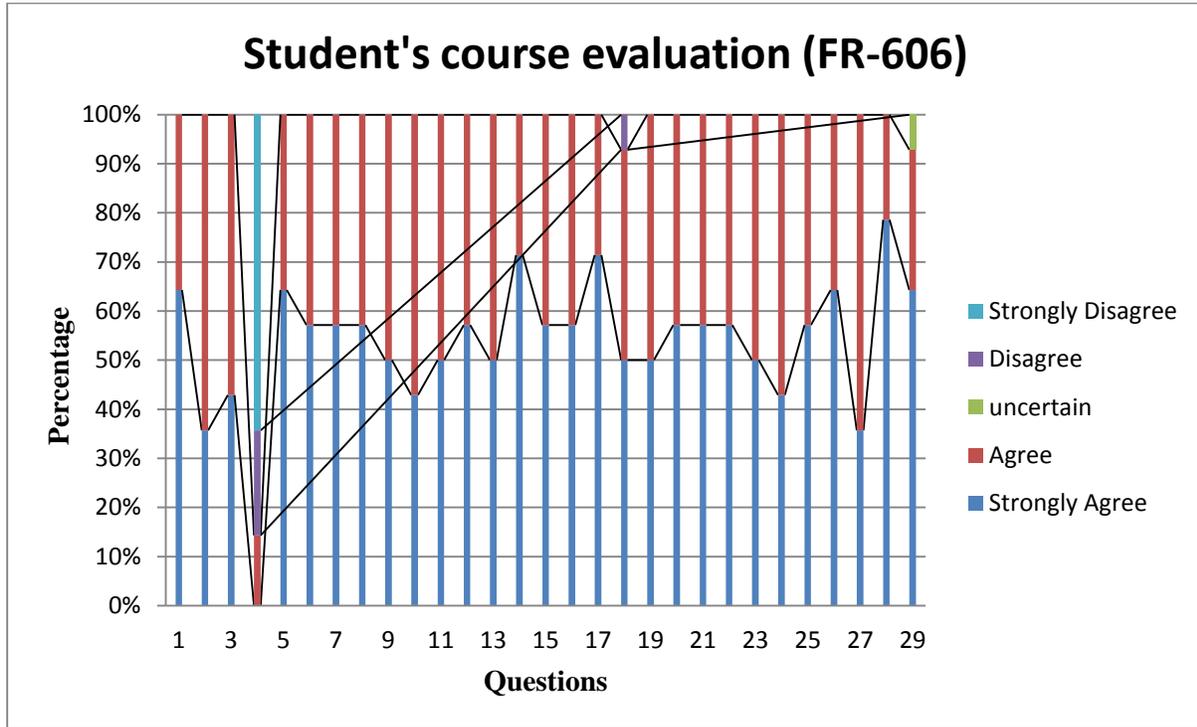


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27. Tutor dealt effectively with my problems.
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29. Demonstrator dealt effectively with my problems

Mr. Saeed Gulzar- Lecturer (FR 606)

The course entitled “Forest Law and Policy ” was taught by Mr. Saeed Gulzar and was evaluated by the students through proforma no: 1. The perception of the student for this course is well defined in the following graph.

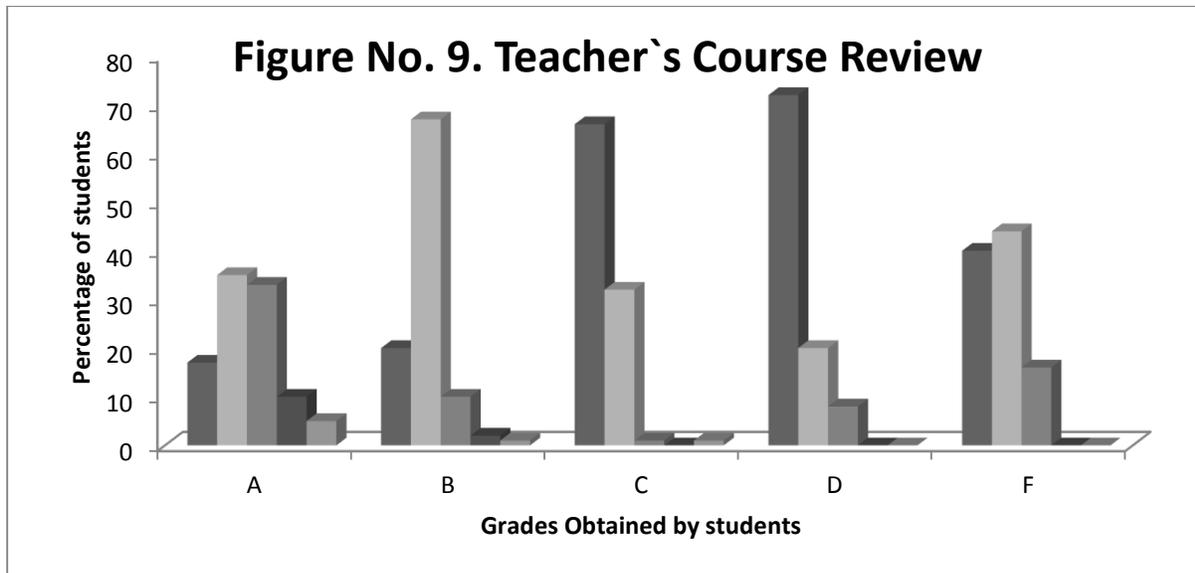


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Teacher`s Course Review Reports

Revision of courses offered during fall 2009-10 and sprong 2010 were reviewd by the teachers and their evaluation is given under (vide proforma 2).

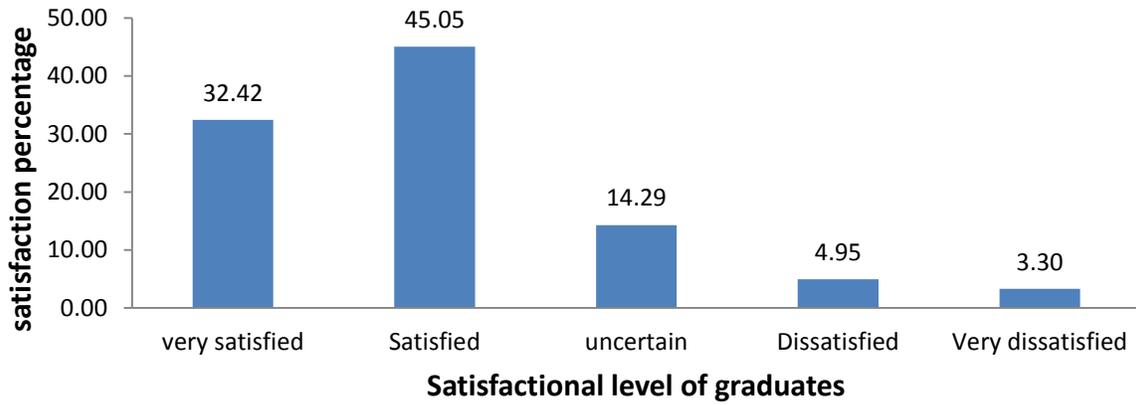


Each teacher was satisfied with the students evaluation of course and teacher vide proforma 1 and 10. All the courses run in conducive manner and 80% teacher are demanding more tours for clarity of concepts of the course

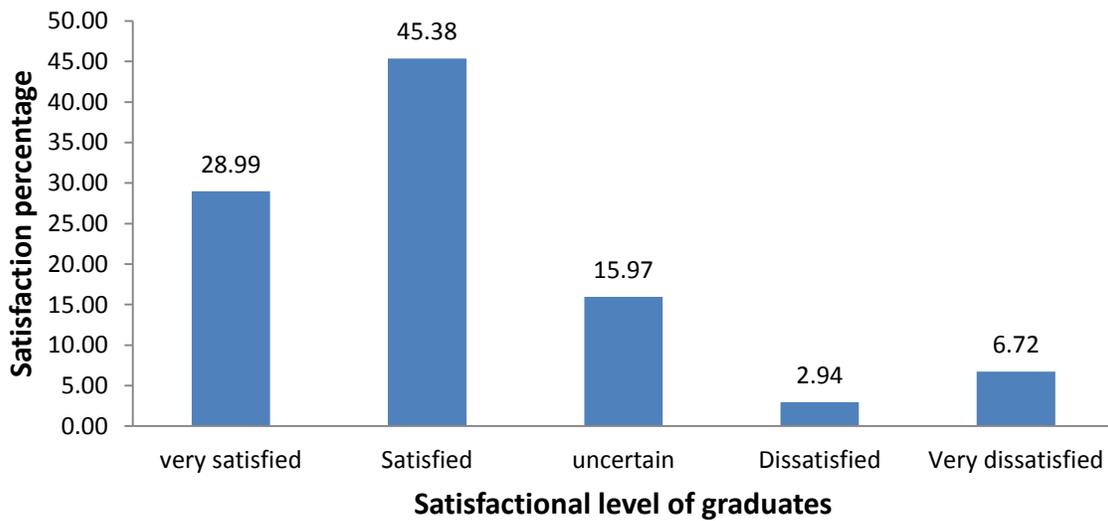
Survey of Graduating Students

Results of survey of graduating students based on Proforma 3 are given in Figure- 10. The graduating students in the last semester were surveyed before the award of degree. On the average basis 45.38% students showed their high satisfaction regarding all the parameters, whereas 28.99 % of the students surveyed were satisfied regarding all information asked. The results of graduating students are summarized and given in Figure No: 10.

**Figure No:10 Survey of graduating Students
2011**



**Figure No:10 a. Survey of Graduating Students
2012**



Affectivity of Working plan Experience:

The working plan experience was found effective in enhancing, ability to work in team, independent thinking, appreciation of ethical values, professional development, time management skills, judgment and discipline. It was second and third batch in 2011 and 2012 who prepared working plans of the Lahri Forest Park Rawalpindi and Karoar Forest Subdivision on request of Conservator of Forests Working plan circle Rawalpindi. The facilities provided by Forest department affected the perception of the students. Those students who were staying in forest were not happy so categorized the working plan experience in dissatisfaction category (Fig- 11; Tables 5 and 5a).

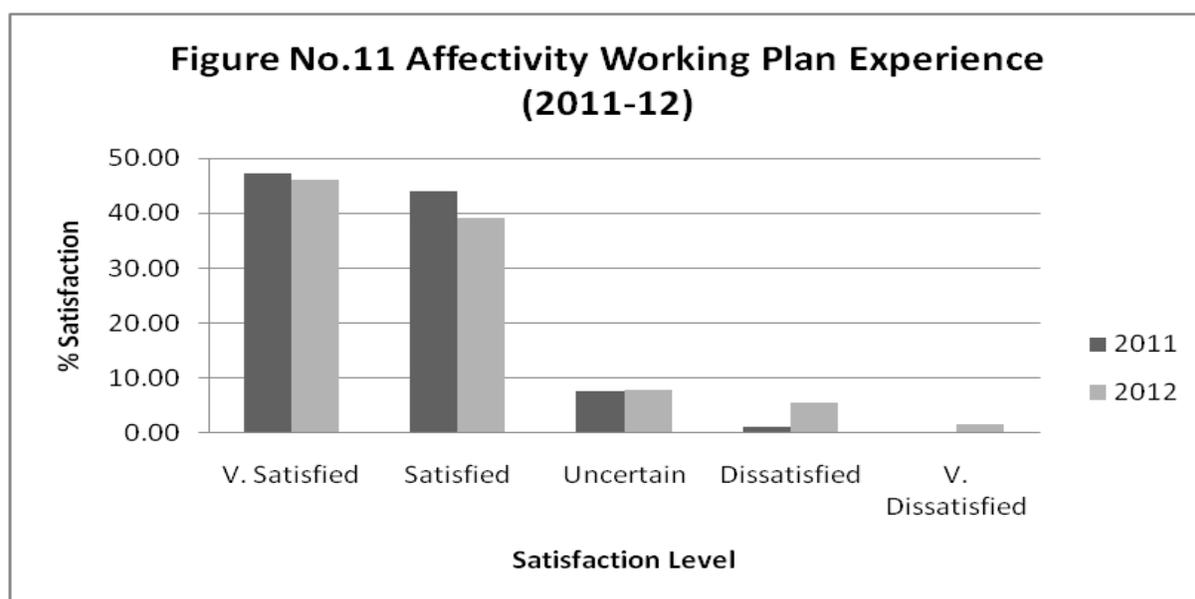


Table 5: The Working plan experience is effective in enhancing professional skills of graduating students (2011)

Serial No	Parameters	Very Satisfied (%)	Satisfied (%)	Uncertain (%)	Dissatisfied (%)	Very Dissatisfied (%)
1	Ability to work in teams	69.23	30.76			0
2	Independent thinking	84.61	7.69	7.69	-	-
3	Appreciation of ethical Values	23.07	61.54	15.38	-	-
4	Professional development	61.53	38.46	-	-	-
5	Time management skills	53.84	38.46	-	7.69	-
6	Judgment	30.76	53.84	15.38	-	-
7	Discipline	30.76	69.23		-	-
8	The link between theory and practice	53.84	30.76	15.38	-	-

Table 5a: The Working plan experience is effective in enhancing professional skills of graduating students (2012)

Serial No	Parameters	Very Satisfied (%)	Satisfied (%)	Uncertain (%)	Dissatisfied (%)	Very Dissatisfied (%)
1	Ability to work in teams	68.75	31.25			0
2	Independent thinking	25	62.5	6.25	-	
3	Appreciation of ethical Values	31.25	43.75	12.5	-	6.25
4	Professional development	56.25	37.5	-	6.25	-
5	Time management skills	37.5	37.5	12.5		6.25
6	Judgment	50	31.25	12.5	6.25	-
7	Discipline	62.5	25	12.5	-	-
8	The link between theory and practice	37.5	50		6.25	-

Alumni Survey

The alumni survey results were compiled from Proforma # 7. Eight students feedback was obtained from the Alumni survey. The programme assessment results are shown below in figure 12:

Knowledge: 36.63% students were having view that they have received knowledge (Excellent to very good) about forestry, humanities and professional development.

Communications Skills: 21.39% were highly satisfied with the program oral and written communication skill and report writing. Majority of students were of view that the programme was excellent to very good. About 21.58% were highly satisfied with program interpersonal skill development. About 20.4% were highly satisfied with the departments regarding management/Leadership skill development.

Skills and Capabilities Reflected In Performance as Foresters.

Department encourages students to develop ability to apply knowledge of Forest & Range Management to work as skilled and successful professionals in the respective fields. While studying, students learn advance knowledge about the field, gain confidence, experience and skills to handle problems relating to their field of specialization independently as well as working in a team of experts.

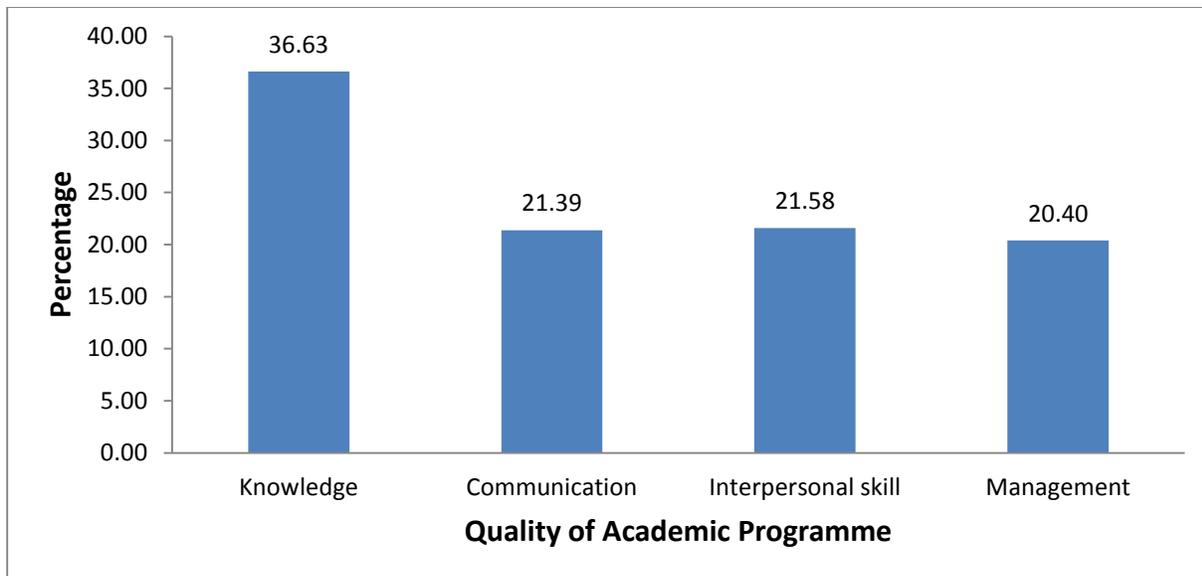


Figure 12: Alumni Survey for evaluation of quality of the degree programme.

Employer`s Survey

Feed back about 20 employees was obtained from organizations viz. Punjab Forest Department, Khyber Pakhtoon Khaw Forest Department, range Research Institute-National Agriculture Research Centre Islamabad (NARC), Pir Mehr Ali Shah Arid Agriculture University Rawalpindi and Banks as shown in Figure 13. Their views were keenly observed and discussed in the department for future improvements. The major emphasis was to know the employers

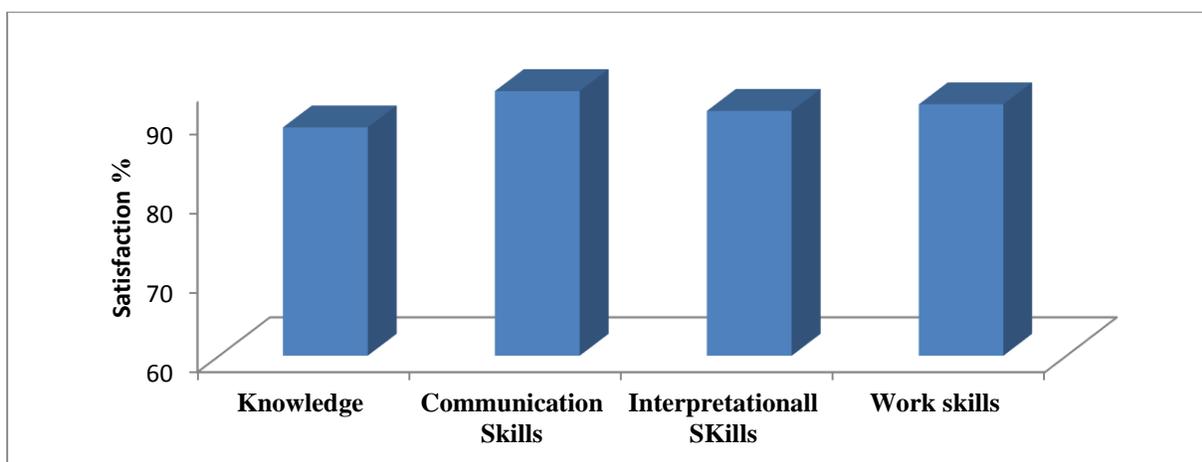


Fig.13. Employer survey for the determination of students skill level

comments on the quality of education regarding: knowledge, communication skill, work skill and interpersonal skill the graduate students have. Survey reflects that our graduates fall above average and in all areas, their abilities were rated above 85%. This indicates that our graduates are well adaptable and can show their better potential in any given environment. However, some employers have given general comments about some weaknesses, particularly the practical workability. The point has been well noted and will be tried to overcome for our future and current students.

Standard 1-3: *The results of Program's assessment and the extent to which they are used to improve the program must be documented*

Regular Assessment Process started recently and in future assessments results will be incorporated accordingly. Following are the strength and weaknesses identified.

Strength

The Department of Forestry and Range Management (F&RM) has following items attributed to its strength

- Full time highly qualified and experienced faculty
- Affordable forestry study courses encompassing both theory as well as practical field training
- Field oriented four years degree program at under graduate according to approved HEC criteria
- Geographical position of PMAS Arid Agriculture University is a cause of attraction for most of students
- Enthusiastic faculty and support staff willing to work every where
- Research facilities both in the lab as well as in the field
- Envisaging changes in courses regular with emerging trends and challenges
- First ever university in Pakistan to produce Range / Ranch and Forest managers with special focus in arid and semi-arid areas of the country

Weakness

- ✓ Insufficient funds for laboratory research, library / reference books, medical and transport facilities
- ✓ The department lacks services of / is in dire need of Watershed and Timber technology experts
- ✓ Lack of adequate infrastructure for research and teaching facilities
- ✓ Insufficient scholarship for faculty and students
- ✓ No safety measures are in place in laboratory
- ✓ Insufficient transport facilities for research and study tours
- ✓ Insufficient IT devices Multimedia, computers, etc
- ✓ Underdeveloped campus life and facilities

Opportunities

- ❖ The Faculty / department members and students can have effective contact, conversation and collaboration, and closer partnership with local employees and NGOs owing to peculiar geographical location of the University / department.
- ❖ Having Agriculture degree, the graduates are eligible to apply in multiple (brown and green) sectors e.g., Agriculture, Forestry, Environment, Banking, corporate sectors
- ❖ Out standing students and those with high caliber may opt for Competitive Exams
- ❖ The graduates may change their professional career from one field to other e.g., from agriculture to wildlife, environment, ecology etc.

Threats

- PFI has already taken a lead and possess all infrastructure in the forestry training
- Degree is not getting priority sometimes in the PPSC because of the monopoly of Forestry department
- Loss of potential faculty staff if no incentives in future in the field of Forestry and range Management

Standard 1-4: The department must assess its overall performance periodically using quantifiable measures.

The evaluation process indicated high efficiency of system and satisfactory impact of outcomes. Almost all the graduate and post graduates got jobs in various organizations (Provincial Department, Universities, Research Organizations, Banks and Private Firms.)

Table 6: Present performance measures for research activities

Faculty	Jour, Publications (National and International)	Conference Publications (Proceedings Abstract)	Projects
Prof. Dr. Sarwat N. Mirza	3	0	1
Dr. Irshad A. Khan	3	0	0
Dr. Abdul Khaliq	5	0	1
Dr. S. Moazzam Nizami	4	0	1
Dr. Aamir Saleem	3	0	2
Mr. Saeed Gulzar	1	0	0
Ms. Lubna Ansari	0	0	1
Mr. Irfan Ashraf	0	0	0

The department is well staffed with availability of expertise in all major fields of Forestry & Range Management.

Significant Future Development Plans

The Department of Forestry & Range Management has planned a number of future research studies addressing the land degradation issues of fragile arid and semi arid environments. Some of the studies include:

- i) Preparation of the forest work plan at under graduate level as part of their study in eight semester of B. Sc Hons Agriculture with major in Forestry & Range Management.
- ii) Rangeland improvement through introduction of high yielding forage grasses and legumes and plantation of multipurpose trees and shrubs by using various moisture conservation techniques.
- iii) Environmental impact assessment of land degradation caused by development activities like road construction and urbanization.
- iv) Agro-forestry studies of promising multipurpose trees as an economically feasible enterprise for the farming communities.
- v) Feeding studies on small ruminants by integrating grazing with crop based by products.
- vi) Assessment of carbon sequestration through forest plantation in different ecological zones of Pakistan.
- vii) To impart quality education in Forestry through audio visual aids and modern tools along with provision of latest literature, journals, books, reviews and access to internet.
- viii) To extend facilities for field tours, herbarium, museum and field laboratory.
- ix) To prepare hand outs, brochures and pamphlets for the farmers and advisory services
- x) To equip the post-graduate laboratories (Forest Surveying & Engineering, Forest ecology, and taxonomy) with the advanced equipments.
- xi) Human Resource development in Forest & Range Management to meet future challenges for sustainable Forestry to cope with demand & Supply of wood.
- xii) To emphasize problem oriented research on specific and serious issues prevalent in the arid ecology.
- xiii) Over all enhancement of knowledge and skills of faculty members in relation to the latest global advancements in this discipline through exchange programs, short training and collaborative research project within and outside Pakistan.

Community services by the department

- Advisory services to the farmers for tree growing as and when desired
- Guidance and supervision of students of various departments numbers about research
- Supervision of students on internship in various organizations in the Punjab.

The number of workshops and seminars organized are given in Table 7.

Table 7: Short courses, Seminars, Workshops and Conferences arranged by the Department Year Short Courses Seminars Workshops/Conferences

Year	Short Courses	Seminars	Workshops/Conferences
2010	1	0	1
2011	0	0	1
2012	0	0	0

Faculty satisfaction regarding the administrative services

- The department maintains a ratio of 4:1 for the academic (technical) and administrative non-technical staff which fulfils this standard set by HEC.
- Administrative meetings (departmental, university, academic council, and syndicate) are attended as and when required. Normally 1 meeting is held per month.
- Quick office disposal are never delayed, so far no complaint in this regard, received from authorities.
- Proper records of each individuals, students thesis etc. are maintained.
- Quantitative assessment of the department since its establishment is given in the table 6.

Table 8: Quantitative assessment of the department (Last 3 years)

Sr. #	Particular	No.	Remarks
I	Undergraduates (B.Sc. Hons) produced	45	Most of the students are now in M. Phil / M. Sc (Hons.) degree (44%), 32% got employment and did not continue education.
ii	Students: Faculty ratio	7:1	Fulfils HEC criteria
iii	Technical: Non-technical Ratio	4:1	Fulfils HEC criteria

Conclusion: The evaluation process indicated high efficiency of system and satisfactory impact of outcomes. Almost 80% of the graduate and post graduates got jobs in various organizations (Provincial Forest departments, universities, research organizations, banks and NGO`s and Environmental Research based organization. private firms). About 53 under graduate, 25 Postgraduate and 8 PhD Scholars are still involved in completing their higher education.

Criteria 2: CURRICULUM DESIGN AND ORGANIZATION

Degree Title: B.Sc. (Hons) Agriculture, Majoring Forestry & Range Management.

A. Intent:

All the courses for degree program are being taught under HEC approved scheme of study for forestry. The scheme was approved by NCRC. The committee consisted of experts and learned professors, subject matter specialists from other universities and research organizations from Pakistan. When and if needed, curriculum for the Department of Forestry & Range Management is revised/updated through different bodies. At department level, Board of Studies, which comprised of senior faculty members, is responsible for updating the curriculum. This body is authorized to formulate syllabus and course content. The chairperson of the Department is the convener of this body. The courses are then sent to the Board of Faculty for approval. The Dean of the Faculty, who is also the convener, conducts meeting. As per university rules courses after the approval from the Faculty Board, are placed before the University Academic Council for their approval.

B. Definition of Credit Hour:

A student must complete a definite number of credit hours. One credit hour is one theory lecture or two hours laboratory practical per week. A credit hour carries 20 marks.

C. Degree Plan

The department of Forestry & Range Management offers 3 degree programs namely; B.Sc. (Hons) Agri. (Major in Range Management & Forestry), BS (Hons) Forestry and M. Phil/PhD Forestry.

Name of Degree

Pre-requisites

B.Sc. (Hons) Agri. (Major in Range Management & Forestry)	F.Sc. Pre-medical / Pre-engineering, after entry test
--------------------------------------------------------------	----------------------------------------------------------

The list of course and elective courses is attached in Table 7. The selection criterion for each course is:-

- That the course is relevant to the degree program.
- It meets the material and international requirements for the degree.
- Adequate facilities are available in the department.
- The program contents meet the program objectives as highlighted and provided by the Higher Education Commission of Pakistan.

D. For each course in the program that can be complete for credit specifying the following:

- Course title (FR)
- Course objectives and outcome (Given in course breakdown into lectures separately)
- Catalogue description (yes)
- Text book and reference (Given in course contents)
- Syllabus breakdown lectures (yes, supplied to QEC separately)
- **Computer usage:** Internet facility is used by the faculty members to update their knowledge regarding each course, research, documentation of references. This facility

is also available to the students to solve their problems, facilitate their assignments and presentations. Undergraduate and Postgraduate students and faculty members are thankful to Punjab government for providing laptop computer to facilitate their learning processes.

- **Laboratory facilities** are provided to the students for their practical exercise, given in the curricula. Post-graduate students also do the work for their theses in the laboratories, basic equipment, material and chemicals and biochemical are provided.

Degree requirements (B.Sc Hons. Agriculture)

As a whole a student has to study 140 credit hours. In first four semesters, students study minor courses (Agriculture Sciences, Information Technology and Veterinary Sciences etc.) as approved by HEC for agricultural degree. After the completion of four semesters, students choose a specialized field (major) of study. In the next four semesters courses of major specialized (major) subject are taught including some minor courses of other departments (Table 8). For the course of working plan writing students are placed in the Punjab Forest Department's working plan circle Rawalpindi for preparation of working plan after forest inventories. Degrees are awarded after completing the required number of credit hours (courses). Minimum Grade Point Average (GPA) for obtaining the degree is 2.50. To remain on the roll of the university a student is required to maintain the following minimum Cumulative Grade Point Average (CGPA) in each semester to be on the roll of the University.

Semester	CGPA
First	0.75
Second	1.00
Third	1.25
Fourth	1.50
Fifth	1.75
Sixth	2.00
Seven	2.25
Eight	2.50

Examination and Weightage

a) Theory

In theory paper, student's evaluation is done by mid-term examination, assignments/quizzes and final examination. Both the mid-term and final examinations are compulsory. A student who misses the mid-term examination is not allowed a make-up examination and is awarded zero marks in that examination. In case a student does not appear in the final examination of a course, he/she will be deemed to have failed in that course. In theory, weightage to each component of examination is as prescribed here under:

Mid Examination	30%
Assignments	10%
Final Examination	60%

b) Practical

For practical examination (if applicable) 100% weightage is given to practical final examination

Eligibility for Examination

A student is eligible to sit for the examination provided that he/she has attended not less than 75 % of the classes in theory and practical, separately. The minimum passing marks for each course are 40% for undergraduate.

Scheme of studies and Course contents of B. Sc. (Hons.) Agriculture

Scheme of studies for B.Sc. (Hons.) Agri. is given in (Table 7). Detailed course contents of under-graduate and post graduate schemes of studies are given in Annexure 13 and 14, respectively.

Table 9: Curriculum Course Requirements for B.Sc (Hons) Agriculture (Major in Range Management & Forestry) (Approved in 2010-11)

Course	Title	Credits
Semester IV		
FR-402	Introduction to agro-forestry & water sheds	3(2-2)
Semester V		
General Courses		
AEN-501	Farm Mechanization	2(1-2)
AGRO-501	Arid Zone Agriculture	2(2-0)
SOC-501	Rural postal Sociology	2(2-0)
Major Courses		
FR-501	General Silviculture	3(2-2)
FR-503	Principles of Agro-Forestry	3(3-0)
FR-505	Range Management	3(2-2)
FR507	Forest Biometrics and Inventory	3(2-2)
FR509	Wildlife Management	3(2-2)
Semester VI		
General Courses		
AEN-502	Conservation Engineering and Water Resources Development	2(1-2)
SS-508	Instrumentation & Laboratory Techniques	2(0-4)
Major Courses		
FR-502	Forest Management	3(2-2)
FR-504	Watershed Management	3(2-2)
FR506	Biodiversity and Environment	3(3-0)
FR-508	Range Vegetation –Livestock Interactions	3(3-0)
FR-510	Forest Protection	3(2-2)
Semester VII		

General Courses		
STAT-601	Experimental Designs	2(1-2)
MGT-601	Introduction to Agri .Business Management	2(2-0)
Major Courses		
FR-601	Range Improvement and Rehabilitation	3(3-0)
FR-603	Forest Timber Science	3(2-2)
FR-605	Forest Utilization	2(2-0)
FR-607	Range Medicinal and Poisonous Plants	2(2-0)
FR-609	Project Planning and Scientific Writing	2(1-2)
Semester VIII		
FR-602	Forest Inventory and Working Plan-I	4(4-0)
FR-604	Forest Inventory and Working Plan-II	4(0-8)
FR-606	Forest Law and Policy	3(3-0)
FR-608	Project Planning, Execution and Scientific Writing	4(0-8)

Table 9 shows that the curriculum of the Department of Forestry & Range Management is consistent with the program objectives

Table 10: COURSES Vs OUTCOME

Courses	Outcomes				
	Develop communication skills	Developing Research Projects	Analytical & Problem solving skill	Develop of Knowledge & vision	Development of professionalism & Research
FR 402	+++	-	+	+++	++
FR 501, FR 503,FR505, FR 507 , FR 509	+++	++	+++	+++	+++
FR 502, FR 504,FR 506, FR508,FR 510	++	++	+	+++	+
FR 601, FR 603, FR 605, FR 606, FR 607, FR 609,	+++	++	+++	+++	+++
FR 602, FR 604, FR 608	++++	++++	++	+++	+++

+ = Moderately satisfactory

++ = Satisfactory

+++ = Highly satisfactory.

Assessment of the Department of Forestry & Range Management Curriculum

The assessment of curriculum given in Table 10 and the courses are cross tabulated according to the program outcomes.

1. The curriculum fits very well and satisfies the core requirements for the program, as specified by the respective accreditation body.

2. The curriculum satisfied the general arts and professional and other discipline required for the program according to demands and requirements set by the Higher Education Commission.

Standard 2.2: Theoretical background, problem analysis and solution design must be stressed within the program's core material

Table-11: Detailed Courses representing theoretical background, Problem analysis and solution design:

Elements	Courses	Title of Courses
	FR402	Introduction to Forestry and Range Management
	FR-501	General Silviculture
	FR506	Biodiversity and Environment
	FR-510	Forest Protection
	FR-607	Range Medicinal and Poisonous Plants
Problem Analysis	FR-503	Principles of Agro-Forestry
	FR-505	Range Management
	FR507	Forest Biometrics and Inventory
	FR509	Wildlife Management
Solution Designs	FR-502	Forest Management
	FR-504	Watershed Management
	FR-508	Range Vegetation –Livestock Interactions
	FR-608	Project Planning, Execution and Scientific Writing
	FR-601	Range Improvement and Rehabilitation
	FR-603	Forest Timber Science
	FR-605	Forest Utilization
	FR-602, FR-604	

Standard 2-6: Information technology component of the curriculum must be integrated throughout the program

While preparing the curriculum, all aspects of information technology were considered and after a critical analysis, relevant aspects were integrated into the program. Three computer and I.T. courses (6 credit hours) and two courses of statistics (6 credit hours) based on computer practical usage were included in the curriculum to fulfill the I.T. requirements for the students of B.Sc (Hons) Agri. (major in Forestry & Range Management) degree.

Standard- 2.7: Oral and written communication skills of the student must be developed and applied in the program.

- Two courses namely forest inventory and working plan I & II each of four credit hours are compulsory at the Under graduate level to develop oral and written communication skills.
- A course of 3 credit hours entitled “Project Planning & Scientific writing” has been integrated in the curriculum of B.Sc. (Hons) Agriculture level.
- Assignments are given to B.Sc (Hons) students on specific titles (part of the course) which are presented orally and given as written report (assignments) by the students which increases their oral and written communication skills.

Criteria 3: LABORATORIES AND COMPUTER FACILITIES

- Laboratory Title: Forestry and Range Management Laboratory for the Under-graduate students.
- Location and Area: Faculty of Forestry, Range Management & Wildlife, D- Block Ground Floor Floor, Main Campus
- Objectives: Laboratory is used for:
Practical exercise and demonstrations to graduate students in their introductory and major courses.
Research work for the graduate and post-graduate students
- Adequacy for instruction: There is no computer for under graduate students in the laboratory.
- Major apparatus: The equipments like Microscopes, autoclave, incubator, deep freezer, refrigerators, laminar flow cabinet, pH meter, elective balance, slide and overhead projectors, shaker, hitter, puppeteers, etc have been purchased under HEC project & installed in the newly established laboratories for proper utilization.
- Major Equipments: The main equipments like saw mill, wood seasoning plant will also soon be installed in the newly established field lab.
- Safety Regulations: Safety measures are available against fire (Extinguishers), minor hazards and accidents, injuries (First Aid Kit). However, the University maintains a Medical Dispensary for such incidents.

Standard 3.1: Laboratory manuals / documentation / instructions for experiments must be available and readily accessible to faculty and students

Laboratory manuals of each subject are not available. The department library has not all the relevant books and manuals. However, individual teachers have their own books and manuals. Some manuals will be prepared by the academic staff themselves.

Shortcomings in the laboratory

The laboratory is not spacious and inadequate. The equipments purchased will soon be installed in newly established labs Equipments regarding molecular approaches are lacking e.g. Stereoscope, PCR Spectrophotometer, relevant software.

Standard 3.2: *There must be adequate support personnel for instruction and maintenance of laboratory*

Laboratory is maintained by:

The 2 laboratory assistant (responsible for equipment, glassware, chemicals, materials, etc) and one laboratory attendant who assist the students in practical, cleaning and washing, etc.

Standard 3.3: *The university computing infrastructure and facilities must be adequate to support program's objectives*

The University has limited computer facility for undergraduate and post graduate level students. However, this facility is available at the department level to almost all faculty members independently.

Criteria 4: STUDENT SUPPORT AND ADVISING

The University organizes support programs for students and provide information regarding admission, scholarship schemes etc. Department in its own capacity arranges orientation and guided tours of the department. Director Students Affairs is also there and arranges various cultural activities and solves the students' problems. However currently there is no Parent/Teacher association.

Standard 4.1: *Courses must be offered with sufficient frequency and number for students to complete the program in a timely manner*

- a. Courses are taught as per strategy of HEC.
- b. At undergraduate level subjects courses are offered as per scheme of study provided by HEC and approved by Academic Council and at postgraduate level courses are offered according to the availability of the teachers.

- c. Elective courses are offered as per policy of HEC and University

Standard 4.2: Courses in the major must be structured to ensure effective interaction between students, faculty and teaching assistants

- Courses are structured and decided among the departmental faculty members and in board of study meeting
- Decided at the commencement of the semester and the faculty members interact frequently among themselves and with students. Students are welcome to ask question in class and even after the class.
- Emphasis is always given for an effective interaction between undergraduate and post graduate students.

Standard 4.3: Guidance on how to complete the program must be available to all students and access to qualified advising must be available to make course decisions and career choice.

- Students are informed about the program requirements through the office of the head of the department (Chairman) and through the personal communication of the teachers with the students
- The counseling of the students is continuous process and students can also contact with relevant teachers whenever they face any professional problem.
- Student can interact with the teachers / scientist in Universities or research organization whenever they needed and there is open option for the students to get the membership in the professional societies like WWF-Pakistan, Wetland and Houbra foundation, etc.

Criteria 5: PROCESS CONTROL

Standard 5.1: The process by which students are admitted to the program must be based on quantities criteria and clearly documented. This process must be periodically evaluated to ensure that it is meetina its obiectives.

- The process of admission is well established and followed as per rules and criterion set by University both for undergraduate and post graduate programs
- Admission criteria for undergraduate program: F.Sc. pre medical / pre engineering and marks in last attended certificate.
- All these entries are based on the recommendations of supervisory committee
- Admission criteria is revised every year before the announcement of admissions

Standard 5.2: *The process by which students are registered in the program and monitoring of students progress to ensure timely completion of the program must be documented this process must be periodically evaluated to ensure that it is meeting its objectives.*

- In the 4th semester students are allotted different majors (Like forestry, PP, ENTO, etc) by the Dean faculty of FC & FS
- Students are evaluated through Mid, Final and Practical exams and through assignments
- Registration is done once every year at the time of admission while a student once admitted for each degree is evaluated through his result of each semester. If the students fulfill the criteria of the University they are promoted to the next semester.
- In general, the students are registered on competition bases keeping in view the academic and research standards

Standard 5.3: *The process of recruiting and retaining highly qualified faculty members must be in place and clearly documented. Also processes and procedures for faculty evaluation, promotion must be consistent with institution mission statement. These processes must be periodically evaluated to ensure that it is meeting with its objectives*

- Recruitment policy followed by the University is recommended by HEC. Induction of all posts is done as per rule.
- Posts are advertised in the national newspapers, and the applicants are short listed on the basis of experience, qualification, publications and other qualities / activities as fixed by the University
- The candidates are interviewed by the University Selection Board and Principal and alternate candidates are selected.
- Selection of candidates is approved by the Syndicate for issuing orders to join within a specified period.
- Induction of new candidates depends upon the number of approved vacancies
- Standard set by HEC are considered
- At present, no procedure exists for retaining highly qualified faculty members. However, the revised pay scales of structure is quite attractive
- HEC also supports appointment of highly qualified members as foreign faculty Professor, National Professors and deputed them in various departments of the University.

Standard 5.4: *The process and procedures used to ensure that teaching and delivery of course material to the students emphasizes active learning and that course learning outcomes are met. The process must be periodically evaluated to ensure that it is meeting its objectives.*

- It is done by periodically revising the curriculum depending upon requirements, innovations and new technology.
- With the emergence of new fields, new courses are set and included in the curriculum
- Students usually buy cheap Asian editions of technology books. These are also available in the University library where documentation, copying and internet facilities are available off and on.
- Students make their own notes using class notes and consulting library books and journals.
- All efforts are made that the courses and knowledge imparted meet the objectives and outcomes.

Standard 5.5: *The process that ensures that graduates have completed the requirements of the program must be based on standards, effective and clearly documented procedures. This process must be periodically evaluated to ensure that it is meeting its objectives.*

- According to the examination system of the University which is clearly documented.
- The evaluation procedure consists of quizzes, mid and final examinations, practical, assignments and reports, oral and technical presentations.
- The controller of examinations announces the date regarding commencement of examination. After each semester, the controller office notifies results of the students.
- The evaluation procedure consists of quizzes, mid and final examinations, practicals, assignments, reports, oral and technical presentations.
- The minimum passing marks for each course is 40% for undergraduate degree.
- In theory, weight age to each component of examination is as prescribed here under:

Mid Examination 30%
 Assignments 10%
 Final Examination 60%

- Grade points are as follows

Marks Obtained	Grade	Grade point	Remarks
80-100 %	A	4	Excellent
65-79 %	B	3	Good
50-64 %	C	2	Satisfactory
40-49 %	D	1	Pass
Below 40 %	F	0	Fail

- Gold medals are awarded to the students who secure highest marks. Degrees

are awarded to the students on the convocation that is held every year

Criteria 6: FACULTY

Standard 6-1: *There must be enough full time faculty who are committed to the program to provide adequate coverage of the program areas/courses with continuity and stability. The interests and qualifications of all faculty members must be sufficient to teach all courses plan modify and update courses and curricula. All*

Currently there are eight full time faculty members out of which five are Ph.D. Three faculty members are currently enrolled in PhD. The field of specialization of faculty members is Forest Management, Forest Ecology, Range Management, Watershed Management, Agro forestry/ Social Forestry, Forest Biomass estimations, Carbon Sequestration assessments and wood technology (Table 12).

Table 12: Faculty distribution by program area in Forestry & Range Management

Program area of specialization	Courses in the area & average number of sections per year	Number of faculty members in each area	Number of faculty with Ph.D. degree in each area
Forest/Agro-forest Management	10	4	1
Forest/ Range ecology & Management	9	3	3
Watershed Management	3	-	-
Wood technology	2	-	-
Forest Carbon Budgeting	1	1	1
Total	25	8	5

Standard 6-2: *All faculty members must remain current in the discipline and*

Sufficient time must be provided for scholarly activities and professional development. Also, effective programs for faculty development must be in place. Effective Programs for Faculty Development

- In each semester mixed courses are offered according to work load of faculty members
- Division of students for supervision is made on the basis of faculty expertise/research interests

Existing faculty development programs at department and university level

- From the project “strengthening of Forestry & Range Management department” two faculty members got chance for abroad for their professional development
- Faculty members attended workshops/seminars out side and within university
- Laboratory, Library and internet facilities are available for scholarly work and academics improvement
- Support for attending conferences can lead to enhancement of research initiatives at the university.
 - There is university-funded program, which provides financial support for research projects by the young faculty members

Frequency of faculty program evaluation

- As and when required

Standard 6-3: All faculty members should be motivated and have job satisfaction

The young faculty is mobilized by timely back up and appreciation by the senior faculty members. Avenues for research funding are provided through university research fund.

There should be the programs and processes in place to attract good faculty members e.g. teaching and research awards annually, reasonable teaching load and class size, social activities and better salary package.

Results of faculty survey employing Proforma 5 were summarized and are given Table 12. It was filled by all the 6 faculty members during year 2011-12 (Two faculty members are on study leave)

The results showed satisfaction of the teachers over most of the parameters. However, level of monitoring, cooperation with colleagues and the cooperation of teachers needs to be addressed.

Table 13. Results of the Faculty Survey (Proforma - 5)

S.No	Core Questions	Prof. Dr. Sarwat	Dr. Irshad	Dr. S.M. Nizami	Dr. Aamir Saleem	Dr. Abdul Khaliq	Saeed Gulzar
1	Your mix of research, teaching and community service.	B	B	B	B	B	B
2	The intellectual stimulation of your work.	B	C	B	B	B	B
3	Type of teaching /research you currently do.	B	C	B	C	B	B
4	Your interaction with students.	A	B	A	A	A	B
5	Cooperation you receive from colleagues.	B	B	A	D	C	C
6	The mentoring available to you.	C	C	A	C	D	D
7	Administrative support from the department.	A	A	A	A	B	B
8	Providing clarity about the faculty promotion process.	A	B	C	D	B	D
9	Your prospects for advancement and progress through ranks.	A	C	C	B	D	-
10	Salary and compensation package.	B	B	B	D	B	B
11	Job security and stability at the department.	A	A	B	A	C	C
12	Amount of time you have for yourself and family.	C	C	B	B	C	C
13	The overall climate at the department.	B	A	B	B	C	C
14	Whether the department is utilizing your experience and knowledge	A	A	B	A	C	C
15	What are the best programs/ factor currently available in your department that enhance your motivation and job satisfaction:	Cooperation of all faculty	Cooperation from Dean	Cooperation from Dean	Cooperation from Dean	Cooperation from Dean	Cooperation from Dean
16	Suggest programs /factors that could improve your motivation and job satisfaction?	Provision of Infra structure, Vigilant monitoring	Provision of more budget.	Easy access to field tours & Research	House hiring & SPS	Duty allocation	Space allocation.

A= Very Satisfied; B= Satisfied; C= Uncertain; D= Dissatisfied; E= Very Dissatisfied

Criteria 7: INSTITUTIONAL FACILITIES

According to this criterion, the institution must have the infrastructure to support new trends in learning such as e-learning including digital publications, journals etc. The library must possess an up-to-date technical collection relevant to the program and must be adequately staffed with professional personnel. Insufficient library's technical collection of books. Recommended books and relevant journals of the programs are not available to the students. These aspects need to be strengthened in number and space. Class rooms must be adequately equipped and offices must be adequate to enable faculty to carry out their responsibilities.

Standard 7.1: *The institution must have the infrastructure to support new trends in learning such as e-learning*

Supportive Infrastructure and Facilities in learning:

- a. The labs. are available in the department and students sits in them for reading and research.
- b. Hot & Cold facilities, Dept. library with easy access make working/ research/ study environment conducive for higher learning. Unfortunately such facilities are not adequately / properly available and there is no continuity in their delivery.

Standard- 7.2: *The library must possess an up-to-date technical collection*

relevant to the program and must be adequately staffed with

- First of all library do not have space capacity as per number of students in the University.
- Secondly technical book collection is general not specifics to courses offered and books not properly arranged rather lying haphazardly.
- Thirdly scientific journals in take are negligible that is back bone of any scientific/technical writing.
- Fourthly library is not computerized and internet facility is very meager to the number of students at university level.
- Fifthly library should remain open from 08am to 10pm without any break including Sunday's.

Standard- 7.3: *Class-rooms must be adequately equipped and offices must be*

adequate to enable faculty to carry out their responsibilities

The properly designed classrooms are less in number and are without proper maintenance and facilities. They are not updated according to new trends/ technologies. Most of the graduate & post graduate (Major) classes held in labs which badly affects their research use. Similarly faculty offices are very less in number and not fully furnished to make working environment comfortable, rather they are over crowded and unattended on the part of works & finance dept.

Criteria 8: INSTITUTIONAL SUPPORT

The university administration has been struggling hard to strengthen all the Departments, upgrade them and establish new faculties and Institutes. The university is also trying to attract highly qualified faculty.

Standard 8-1: *There must be sufficient support and financial resources to attract and retain high quality faculty and provide the means for them to*

There is no proper maintenance/ documentation and investment of GPF deducted from salary. Similarly no benefit/ welfare from BF deduction available to faculty. Very meager benefit for faculty children's education at university level is available. Similarly very little attention is being paid for faculty residential facilities development at university campus and major proportion of the facility available mostly allotted to administrative staff and majority of faculty members remain in waiting list for a long time. Transport facility is not frequently and easily available for field works/ touring. Financial support is too low to meet the expenses in dept., only about Rs. 32000/- is available per annum for office and lab expenses including student's research.

Technical Staff: Works and internet net working depts. are very slow in response. Financial and accounting depts. are also slow in their delivery.

Office equipment: Sufficient office equipment is available to under take teaching and research activities.

Standard 8-2: *There must be an adequate number of high quality graduates students, research assistants and Ph.D. students.*

The intake of B.Sc. (Hons) agriculture with major in Forestry & Range Management students is once in a year. The detail of the students enrolled in the year 2011-12 is given in Table 12.

Table 14: Enrollment in Different Programs from 2011-12

Year	B.Sc (Hons)
2011	27
2012	23
Total	50

Graduate students and Faculty Ratio for 2011-12

Year	Faculty Nos.	Students Nos.	Ratio
2011	6	27	1 : 5
2012	6	24	1 : 4

Standard- 8.3: *Financial resources must be provided to acquire and maintain*

Library holdings, laboratories and computing facilities.

The amount of about Rs. 32000/- per annum for books, laboratories and equipment and computer maintenances and consumable supplies etc in addition to projects funding if available is considered sufficient. Otherwise it is too low to maintain and run the departmental business and dept has to depend on central store for necessary supplies and maintenance.

SUMMARY

Given the importance of fragile arid and semi arid areas of the country, PMAS-Arid Agriculture University, Rawalpindi established the Department of Forestry & Range Management in 2002 to cater the need of producing skilled manpower in this specialized area of education as well as conducting area specific research. The overall objective of the Department of Forestry & Range Management is to impart high level education and undertake research on issues related to conservation and rehabilitation of range and forest resources. Initially, the Department worked under the faculty of Crop & Food Sciences and the degree programmes including B.Sc.(Hons.), M.Sc.(Hons.) and Ph.D were initiated. Realizing the importance of the subject, the University authorities approved a separate Faculty of Forestry, Range Management & Wildlife in 2006 and the Department of Forestry and Range Management started working under the new faculty with more zeal and dedication. The Department activities were strengthened with a modest funding from HEC under R&D project “Establishment of the Department of Range Management & Forestry” which not only provided the much needed equipments for both field and laboratory oriented research work but also provided sufficient number of faculty and supporting staff positions.

The mission of the Department of Forestry and Range Management is to impart undergraduate and post graduate education, practical field training as well to conduct problem oriented research on topics related to natural resource management in general and forest and rangeland resource conservation and improvement in particular.

The comprehensive “Self Assessment Report” gives detailed analysis of programme objectives and outcomes in the light of feedback obtained through various evaluation proformas designed to achieve the objectives of self assessment report. The analysis showed a clear picture about teachers evaluation, course evaluation, alumni student evaluation, etc. Departmental strengths and weaknesses have also been highlighted in the report for future improvement in the academic and research programmes of the Department. Various bottlenecks hindering the active progress of departmental goals have been identified. Some of these bottlenecks include insufficient field visits and practical training facilities within the

tight schedule of semester system, etc. Efforts will be made to devise a mechanism to improve the practical training of students in collaboration with the institutions like Pakistan Forest Institute, Peshawar especially participation in their working plan exercise of forest resources.

Some of the major achievements of the Department of Forestry and Range Management include a well designed and structured curriculum at the level of undergraduate. The courses which are developed under the guidelines of the Higher Education Commission and in consultation with the Department of Forestry and Range Management, University of Arid Agriculture, Rawalpindi, forest and Wildlife Department of University of Agriculture, Faisalabad and Pakistan Forest Institute Peshawar. In addition, the forest inventory and working plan courses of undergraduate program are designed in collaboration with the leading institutions like Punjab Forest Department, to give hand on practical experience to the graduates on forest management. The rules and regulations set forth by the University as well as the Higher Education Commission of Pakistan regarding admission, examination and evaluation of thesis, etc are strictly followed to ensure the implementation of quality standards. Various issues concerning the future improvement in education standards have also been highlighted including effective implementation of tutorial programmes to enable students to interact with teachers in TGMs to discuss academic issues and explore ways and means of better communication among teachers and students for effective learning as well as participation in co-curricular activities. Following actionable Recommendations have been proposed.

- A pragmatic and scientific system for newly inducted teachers training should be introduced at the University / department level encompassing important aspects of teaching.
- Two labs are recommended to be established to cater the study requirement of graduate level students.
- Annual budget allocation for operation and maintenance of labs is recommended to be increased to the extent of Rs. 150,000.
- The biannual budget for department library is recommended to be to the allocation tone of Rs. 50000.

- The establishment of “Book Bank” at the department level is strongly recommended. The relevant cell may have provision of keeping 50 photocopies of reference books/material.
- Research labs are recommended to be established solely for undertaking research activities and not for classes.
- The needs of field tours in Forestry & Range Management cannot be overemphasized. To cater for such need, the Department of Forestry & Range Management should have its own transport facility that can be used at liberty or special provision for transport to utilize at the times of hours when ever required.
- To emphasize country wide importance of natural wealth and its protection and conservation, special funds may be allocated for the publication of textbooks (1500 in No.) and the reference material already written that requires funds for publication.
- Latest multimedia facility with all the accessories and photographing may be provided to the department to cater onsite tour record and subsequent changes/update prophesied in future.
- Orientation as well as refresher courses for the teaching staff may be arranged on regular basis.
- Short foreign trainings for teachers for boosting up research activities may be arranged.
- Credit for writing professional books may be granted as special incentive equivalent to 10 research papers.
- Forestry professional career should not be taken as gender specific and any discrimination in this regard should be discouraged both at field as well as office / research level.
- Provincial forest department be approached at university level to include degrees awarded by the department of forestry and range management in Provincial public service commission advertisements in the field of forestry.

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Program Team Members

Dr Irshad A. Khan (Coordinator)

Dr. Aamir Saleem (Member)

Dr Abdul Khaliq (Member)

Annexure-1 Resume of Faculty Members

Name	DR. SARWAT N. MIRZA
Personal	H. No. 291, St. 38, G-9/1, Islamabad. 051-9062269
Experience	<p>Period Served</p> <p>Scientific Officer, (19.2.1983-15.9.1987) Range Management NARC/PARC</p> <p>Research Fellow, (1987-1991) Utah State University, USA</p> <p>Senior Scientific Officer, (1993-2002) Range Management</p> <p>Associate Professor (2002 to date) (Range Management & Forestry), University of Arid Agriculture, Rawalpindi</p>
Honor and Awards	<p>-Supervising thesis research of post-graduate students at M.Sc.(Hons.) and Ph.D level as well as member of the supervisory committee of a number of post graduate students.</p> <p>-Member of the Advanced Studies & Research Board of the University of Arid Agriculture.</p> <p>-Member of the Faculty Board and University Academic Council.</p>
Memberships	Member of the society of Conservation Biology
Graduate Students Postdocs Undergraduate Students Honour Students	<p>PhD Scholars under supervision 2010-12 = 4 M.Phil students 2010 = 2, 2011 = 2 and 2012 = 1</p> <p>Note: Above data is for reporting period only.</p>
Service Activity	Academics, Research and Administrations
Brief Statement of Research Interest	(research specialization in sub-disciplines of range ecology/management, grazing management, diet selection behaviour of sheep, range resource inventory and assessment,

	rangeland monitoring and evaluation, shrub ecology and management, desertification control, sand dune stabilization, monitoring and evaluation of range projects).
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Publications Note: Publications include only papers/article for reporting period only.	<p>Ahmad, S., M. Islam and S.N. Mirza. 2012. Rangeland Degradation and Management Approaches in Balochistan, Pakistan. Pak. J. Bot. 44: 127-136.</p> <p>Arshad Ullah, M., J. Afzal., M. Anwar, S.N. Mirza and M. Rasheed. 2012. Forage Production and Nutritional Quality of Grasses in Mesic Climate of Pothwar Plateau, Rawalpindi. The Journal of Animal & Plant Sciences. Vol. 22(3):781-784.</p> <p>Essa, M., S.M. Nizami, S.N. Mirza, I.A. Khan and M. Athar. 2011. Contribution of agroforestry in farmers' livelihood and its impact on natural forest in northern areas of Pakistan. African J. of Biotechnology. Vol. 10(69):15529-15537.</p>
Research Grants and Contracts.	HEC project on RM&F (Establishment of the Department of Range Management & Forestry)
Other Research or Creative Accomplishments	Working on Dean FRW
Selected Professional Presentations	

Name	DR. IRSHAD AHMAD KHAN
Personal	House No.2 Colony No.2 Pir Mehr Ali Shah Arid Agriculture University Rawalpindi
Experience	<p>Period Served</p> <p>Demonstrator and Teacher (1981) University Agriculture Faisalabad</p> <p>Agriculture Officer (1982) Agricultural Extension Department</p> <p>Lecturer (29-8-1982 to 28-10-1991) Barani Agri. College, Rawalpindi</p> <p>Assistant Professor, (28-10-1991 to 4-12-2004) (Range Management &</p>

	Forestry), University of Arid Agriculture Rawalpindi State Care Officer (1988 to 2000) UUAR Associate Professor (2-12-2004 to date)
Honor and Awards	-Supervising thesis research of post-graduate students at M.Sc. (Hons.) and Ph.D level as well as member of the supervisory committee of a number of post graduate students. -Member of the Faculty Board and University Academic Council.
Graduate Students Postdocs Undergraduate Students Honour Student	PhD Scholars under supervision 2010-12 = 2 M.Phil students 2010 = 3, 2011 = 3 and 2012 = 2 Note: Above data is for reporting period only.
Service Activity	Academics, Research and Administrations
Brief Statement of Research interest	Range Management, Watershed Management and enhancement of Mycorrhizal and Nodulation activities of the range plants and trees to increase the growth of range grasses, trees and shrubs in the Rangeland
Publications Note: Publications include only papers/article for reporting period only.	Sana ul Haq, S. N. Mirza, S.M. Nizami, A. Khaliq Chaudhary, I. A. Khan and Rehmat Ullah Qureshi 2011 . Vegetation Analysis and Winter Season Carrying capacity of sub tropical, sub Humid range lands of Dharabi Watershed Pakistan. Pak. J. Bot., 43(3): 1669-1672. (IF: 0.947) Muhammad Essa, Moazzam Nizami, Sarwat N. Mirza, Irshad A. Khan , Mohammad Athar and Manzar Qayyum. 2011 . Contribution of agroforestry in farmers livelihood and its impact on natural forest in northern areas of Pakistan. African Journal of Biotechnology .,10(69): 15529-15537(IF:0.54) Mehreen Abbas, S. M. Nizami, Aamir Saleem, Saeed Gulzar and Irshad A. Khan . 2011 . Biomass expansion factors of <i>Olea ferruginea</i> (Royle) in sub tropical forests of Pakistan. African Journal of Biotechnology .,10(9):1586-1592. (0.54)

Name	Dr. Syed Moazzam Nizami
Personal	Associate Professor Department of Forestry and Range Management Faculty of Forestry, Range Management and Wildlife

	<p>University of Arid Agriculture Shamsabad, Murree Road Rawalpindi 46300, Punjab PAKISTAN Ph:+92 51 9062269, 92900019 Cell: +92 321 5029381</p>										
Experience	<table border="0"> <thead> <tr> <th style="text-align: left;">Designation</th> <th style="text-align: left;">Period Served</th> </tr> </thead> <tbody> <tr> <td>Associate Professor FRM University of Arid Agriculture, Rawalpindi</td> <td>(14.12.2010- to date)</td> </tr> <tr> <td>Assistant Professor, Forestry & Range Management</td> <td>(3.12.2005- 13.12.2010)</td> </tr> <tr> <td>Lecturer Forestry & Range Management University of Arid Agriculture, Rawalpindi</td> <td>(12.12.2002- 2.1.2.2005)</td> </tr> <tr> <td>Assistant Research Officer / Tutor Punjab Forest Department</td> <td>(5.7.1999- 11.12.2002)</td> </tr> </tbody> </table>	Designation	Period Served	Associate Professor FRM University of Arid Agriculture, Rawalpindi	(14.12.2010- to date)	Assistant Professor, Forestry & Range Management	(3.12.2005- 13.12.2010)	Lecturer Forestry & Range Management University of Arid Agriculture, Rawalpindi	(12.12.2002- 2.1.2.2005)	Assistant Research Officer / Tutor Punjab Forest Department	(5.7.1999- 11.12.2002)
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Assistant Research Officer / Tutor Punjab Forest Department	(5.7.1999- 11.12.2002)										
Honor and Awards	<ul style="list-style-type: none"> • <i>1st Position</i> in University of Peshawar In M.Sc Forestry session 1997-99. • <i>2nd position</i> in University of Peshawar In B.Sc Forestry session 1994-96 • Inspector General of Forests <i>Gold medal</i> for Standing 1st in M.Sc Forestry (1999) • Director General Of Forests <i>Gold Medal</i> for Best Practical Forester(1999) • Pakistan Forest Institute <i>Silver Medal</i> for standing 1st in Forest Management Plan in M.Sc(1999) • Pakistan Forest College <i>Silver Medal</i> for standing 1st in Farm & Energy Forestry Management Specialization(1999). • Pakistan Forest Institute <i>Silver Medal</i> for standing 1ST in Forest Management Scheme (1997). • Member of the Faculty Board and University Academic Council. 										

Memberships	<ol style="list-style-type: none"> 1. On Line forester Association Pakistan 2. Member of Global Online forester organization.
Graduate Students Postdocs Undergraduate Students Honour Students	PhD Scholars under supervision 2010-12 = 2 M.Phil students 2010 = 3, 2011 = 4 and 2012 = 3 Note: Above data is for reporting period only.
Service Activity	<ol style="list-style-type: none"> 1. Organizer International Symposium on “Issues in Higher Education in Pakistan” on Nov. 13th 2006. Sponsored by HEC & Promotion of Education in Pakistan Foundation, Inc. USA 2. Ex-member of University Academic Council from 2004-2006 3. Coordinator Debating Society PMAS, Arid Agriculture University for 5years. 4. External examiner in University of Azad Jammu Kashmir Agriculture Faculty Rawalkot for year 2004-2005. 5. Visiting professor of University of Azad Jammu Kashmir Agriculture Faculty Rawalkot for the year 2005-2006 6. Visiting professor of Allama Iqbal Open University for the year 2003-2007. 7. President rotary Club of Islamabad Margallah for year 2005. 8. Academics and Research

<p>Brief Statement of Research Interest</p>	<p>My research interests revolve around management of forests and estimation of biomass and linking ecosystem biomass with the carbon budgeting.</p> <ol style="list-style-type: none"> 1. One focus has been the detailed estimation of Carbon stocks in forest Ecosystems. 2. Another focus has been Forest tree and stand measurements for yield regulation and scientific management of the watersheds under different environmental scenarios. 3. More recently, I have begun research to establish biomass expansion factors of the dominant species of Pakistani Forest Ecosystems to finally quantifying the carbon stock and sequestration potential. <p>My research has been applied to issues of:</p> <ol style="list-style-type: none"> 1. Inventory of the forests. 2. Environmental Issues 3. Forest and Watershed Management
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<p>Publications</p> <p>Note: Publications include only papers/article for reporting period only.</p>	<p>Syed Moazzam Nizami. 2012. Assessment of the carbon stocks in sub tropical forests of Pakistan for reporting under Kyoto protocol. <i>Journal of Forestry Research</i>.,23(3): 377-384.(IF:1.14)</p> <p>Sana ul Haq, S. N. Mirza, S.M. Nizami, A. Khaliq Chaudhary, I. A. Khan and Rehmat Ullah Qureshi 2011. Vegetation Analysis and Winter Season Carrying capacity of sub tropical, sub Humid range lands of Dharabi Watershed Pakistan. <i>Pak. J. Bot.</i>, 43(3): 1669-1672. (IF: 0.947)</p> <p>Muhammad Essa, Moazzam Nizami, Sarwat N. Mirza, Irshad A. Khan, Mohammad Athar and Manzar Qayyum. 2011. Contribution of agroforestry in farmers livelihood and its impact on natural forest in northern areas of Pakistan. <i>African Journal of Biotechnology</i> .,10(69): 15529-15537(IF:0.54)</p> <p>Mehreen Abbas, S. M. Nizami, Aamir Saleem, Saeed Gulzar and Irshad A. Khan..2011. Biomass expansion factors of <i>Olea ferruginea</i> (Royle) in sub tropical forests of Pakistan. <i>African Journal of Biotechnology</i>.,10(9):1586-1592. (0.54)</p>
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<p>Research Grants and Contracts.</p>	<p><u>International Center for Agricultural Research in the Dry</u></p>
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	<p><u>Areas (ICARDA)</u> Integrated Watershed Development for Food Security and Sustainable Improvement of Livelihood in Barani Areas of Pakistan (Focal Person for Forestry) . Sponsored by Austrian Development Agency, CGIAR Targeted Funding (Budget: € 840,421)</p> <p><u>Ministry of Environment/ Punjab Forest Department/ HEC</u> Estimation of Carbon stocks in managed and unmanaged sub tropical forests of Pakistan (PhD Thesis). Financed by Punjab Forest Department, MoE and Higher Education Commission</p> <p><u>Allama Iqbal Open University Islamabad</u> Determining Potential of Participatory Forestry in District Jauharabad.</p>
Selected Professional Presentations	<p>International: Estimating carbon Stocks in sub Tropical managed and unmanaged Native forests of Pakistan. International Green House conference 2009. Perth Australia</p> <p>National: Carbon stock estimation under REDD+. SDPI- SDC 13th conference. 23 Dec 2010. Islamabad.</p>

Name	Dr. Abdul khaliq
Personal	Assistant Professor, Department of Forestry & Range Management, PMAS-Arid Agriculture University Rawalpindi.Ph. Off. 051-9290019,051-9092269, Ext. 269 E-mail: abdulkhaliq@uair.edu.pk , chaudhry_ak@hotmail.com
Experience	<p>Period Served</p> <ul style="list-style-type: none"> - Sub-Divisional Forest Officer (Social Forestry) Punjab Forest Department (D. G. Khan & Multan). (May 10, 1986 to Oct. 6, 1987) - Research Officer (Forestry) Punjab Forestry Research Institute Faisalabad. (Nov. 16, 1987 to Mar. 28, 2005) - Senior Research Officer (Agroforestry) Punjab Forestry Research Institute Faisalabad. (June 10, 1996 to Dec. 31, 2001)

	- Assistant Professor, Forestry & Range Management, PMAS-Arid Agriculture University Rawalpindi. (March 29, 2005 to date)
Honor and Awards	- Letter of Appreciation by Vice Chancellor, University of Agriculture, Faisalabad for completing Ph.D within stipulated period of seven semesters with cash prize of Rs. 5000/- - Supervising thesis research of postgraduate students at MSc (Hons), M.Phil and Ph. D level as well as member of the supervisory committee of a number of postgraduate students. - Member department and faculty board of studies.
Memberships	- Member of Executive Committee on Nature Farming Research and Development Foundation (NFRDF), Faisalabad - Member Environment Watch, Faisalabad
Post Graduates, Graduate students, Postdocs, Undergraduate students	PhD Scholars under supervision 2010-12 = 4 M.Phil students 2010 = 4, 2011 = 4 and 2012 = 3 Note: Above data is for reporting period only.
Publication Note: Publications include only papers/article for reporting period only.	Mubashara, M., R. Qureshi, M. Arshad, A. K. Chaudhry and M. K. Laghari. 2012. Taxonomic study of Bacillariophyta from Kallar kahar lake Chakwal, Punjab, Pakistan. Pakistan Journal of Botany, 44(5): 1805-1814. Sana ul Haq, S. N. Mirza, S. M. Nizami, A. Khaliq Chaudhry , I. A. Khan and R. Qureshi. 2011. Vegetation analysis and winter season carrying capacity of sub-tropical, sub humid rangelands of Dhrabi watershed, Pakistan. Pakistan Journal of Botany, 43(3): 1669-1672. Qureshi, R. M. Maqsood, M. Arsad and A. K. Chaudhry . 2011. Ethno medicinal uses of plants by the people of Kadhi areas of Khushab, Punjan, Pakistan. Pakistan journal of Botany, 43(1): 121-133.

Name	Lubna Ansari
Personal	H.No.2, St. 16, Model Colony, Rawalpindi
Experience	<p><i>Period Served</i></p> <p>Field worker (08.5.2006 -26.12.2006) Sungi Development Foundation, Abbot abad.</p> <p>Lecturer(Project post) (19.12.2006 - 14.01.2008) Forestry & Range Management Pir Mehr Ali Shah Arid Agriculture University, Rawalpindi</p> <p>Lecturer (15.01.2008 – to date) Forestry & Range Management Pir Mehr Ali Shah Arid Agriculture University, Rawalpindi</p>
Honor and Awards	-Supervising thesis research of post-graduate students at M.Sc.(Hons.) level as well as member of the supervisory committee of a number of post graduate students.
Graduate Students Honour students	PhD Scholars under supervision 2010-12 = 0 M.Phil students 2010 = 3, 2011 = 3 and 2012 = 3 Note: Above data is for reporting period only.
Service Activity	Academics, Research
Publications	No publication for reporting period.

Name	Saeed Gulzar
Personal	359, Street 13 Shahzad Town Islamabad
Experience	<p><i>Period Served</i></p> <p>Lecturer (17.08.2006 – to date) Forestry & Range Management Pir Mehr Ali Shah Arid Agriculture University, Rawalpindi</p> <p>Lecturer (Project Post) (13.09.2005 – 16.08.2006) Forestry & Range Management Pir Mehr Ali Shah Arid Agriculture University, Rawalpindi</p> <p>Lecturer (25-10-2003 to 12-9-2005.) Agriculture University Faisalabad D.G Khan Campus</p>
Graduate Students Honour students	<p>PhD Scholars under supervision 2010-12 = 0 M.Phil students 2010 = 1, 2011 = 0 and 2012 = 0</p> <p>Note: Above data is for reporting period only.</p>
Service Activity	Additional Charge University Estate care Officer
Conference and Seminar Attended	<p>1- Crop improvement, Conventional and Biotechnological approaches 28-30 August, 2006 arranged by Department of plant Breeding & Genetics, UAAR.</p> <p>2- Organizer in 2nd International symposium on issues in Higher Education in Pakistan, on 13th November 2006 Arranged by HEC & UAAR.</p> <p>3- Basic tools for identification and isolation of micro-organism from 27-29 December, 2006 Arranged by Department of Plant Pathology, UAAR.</p>
Publications Note: Publications include only papers/article for reporting period only.	Mehreen Abbas, S. M. Nizami, Aamir Saleem, Saeed Gulzar and Irshad A. Khan.. 2011 . Biomass expansion factors of <i>Olea ferruginea</i> (Royle) in sub tropical forests of Pakistan. African Journal of Biotechnology.,10(9):1586-1592. (0.54)

