

National Agriculture Education Accreditation Council

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Report of the Accreditation Inspection Committee (AIC)

AIC Team:

DR. Muhammad Bismillah Khan Convener Dr. Abdul Khaliq Member Mr. Naseer Alam Khan Member

Agronomy, College of Agriculture DG Khan

Final Recommendation

Agranamy account at CADGK has basic physical intrastructure to cater the reach of present leve for our dinary of B.Su. (Horse and M.Sc. (Hors.).

On the basis of the importanteendulum, the All recommended intendination of the agence programs of Agronous as CADAK in the "Ye" assection as per III.1 ming system has Degrae Program can incetting some of the import of lavia.

Signatures of AR Members

Name and Designation

Signatures.

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Assessment District

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Mr. Nascer Alain, Rhan Secretary, NASAC III C. Islamoon)

Member

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Acknowledgment

The evaluation team acknowledges the support and cooperation of the Honourable Principal, College of Agriculture, DG Khan, and section head and faculty/staff members of Agronomy. The active help, guidance and logistic support of Mr. Naseer Alam Khan (Secretary) and other staff of NAEAC Secretariat is highly acknowledged.

Accreditation Inspection Committee (AIC), NAEAC

Executive summary

Agronomy is the largest section of the College of Agriculture, D.G.Khan (CADGK). Under graduate program in Agronomy started at CADGK in 2001 and the post graduate classes were initiated in 2007. A total of 158 students have graduated in agronomy and 14 M.Sc (Hons) degrees have been awarded. Presently, 46 students are enrolled in B. Sc. (Hons.) and 13 in M. Sc. (Hons.) program. Eight faculty members are serving in Agronomy and 6 among these hold Ph. D. degree. The faculty is specialized in diverse areas of Agronomy that cover important aspect of crop production. However, there is no senior faculty in agronomy degree program.

NAEAC secretary and the AIC members visited the office of Professor Dr. Muhammad Iqbal, Principal, CADGK. Mr. Naseer Alam Khan, Secretary NAEAC highlighted the aims and objectives of the whole review process. Professor Dr. Muhammad Iqbal gave an overview of the academic programs being offered in the college. Itinerary of accreditation visit as provided by the NAEAC, was followed by the AIC. Detailed discussions and exchange of information were held with the section-in-charge of agronomy, faculty members and senior students. The Team visited the College labs, field area, classrooms, main library, auditorium, and faculty offices.

All the courses offered at undergraduate and postgraduate programs are adopted from the scheme of studies as finalized by HEC constituted National Curriculum Committee in Agronomy. Agronomy section has enough space for faculty offices. There are three labs in the section that are distributed for teaching (2) and research (1), and working capacity of each is quite sufficient to meet requirements of students and faculty. Quality of lab equipment is only basic to meet the research needs of postgraduate students. There is hardly a single trained lab staff. Annul budgetary allocation for maintenance and operation of labs is highly inadequate. There is extreme scarcity of proper research area, and research facility at the farm is very poor primarily due to lack of irrigation water. Non-availability of water poses continuous threat to the establishment of the academic and research activity at CADGK. A bold step need to be taken by investing in developing such a facility at permanent grounds. Agronomy section at CADGK has basic physical infrastructure to cater the needs of present level of enrolment of both under and post -graduate programs.

On the basis of the inspection/evaluation, the AIC recommended accreditation of the degree programs of Agronomy at CADGK in the "Y₃" category as per HEC rating system i.e. Degree Program not meeting some of the major criteria.

Introduction

The Accreditation Inspection Committee (AIC) constituted by the National Agriculture Education Accreditation Council (NAEAC) visited the College of Agriculture, Dera Ghazi Khan (CADGK) on January 21-2, 2013. The objective was to have an external assessment of B. Sc. (Hons) and M. Sc. (Hons) offered by this college in the discipline of Agronomy.

Keeping in view the agricultural potential and specific ecological conditions of the region, College of Agriculture, D.G. Khan was established in 2001 as an off campus of University of Agriculture, Faisalabad. Agronomy is the branch of agriculture dealing with principles and practices of field crop production and soil management. Presently, a total of 59 students are enrolled in agronomy both at B. Sc. (Hons. 46) and M. Sc. (Hons. 13) levels. A total of 172 students have passed out in agronomy by now.

Program mission

To develop dynamic effective future leaders in the field of Agronomy with interdisciplinary approach to exploit and solve the burning issues in field of with focus on better yield, better economy, and better life to the rural community of Southern Punjab.

Program Goals and Objectives

- Offering and teaching a wide range of courses in agronomy at the undergraduate and post graduate levels
- Training of man power to cater needs of Agriculture sector
- Execution of research about current issues to find out the possible solution of the problems
- To cover the demographic and address the needs for agricultural development of Southern Punjab.

Degree plan

Two degree programs in agronomy are offered by CADGK at present.

B. Sc. (Hons.) Agronomy

B. Sc. (Hons) degree program consists of 4 academic years (8 semesters). A student has to earn a total 140 credit hours. Course evaluation is carried out on the basis of class assignments (10%), mid semester examination (30%) and a final semester exam with 60% weightage of the whole course as per university rules. A degrees is awarded by the University of Agriculture, Faisalabad to a candidate who qualifies the required number of credit hours (courses) following by a comprehensive examination, and submission and presentation of an internship report.

M. Sc. (Hons.) Agronomy

The M. Sc. (Hons.) degree program comprises of 2 academic years (4 semesters). A student has to study 35 credit hours with 10 credit hours (research work and thesis writing) and making up a total of 45 credit hours. Degrees are awarded after completing course work, one year research work and thesis writing. The thesis is evaluated by the external examiner as approved by the Vice Chancellor and notified by Controller of Examinations of the UAF. Course evaluation is based on 10% marks for class assignments, 30% marks for mid-term examination and 60% marks for final examination as per university rules.

Criterion Wise Analysis

Criteria I: Strength and Quality of Faculty

There are 8 faculty positions Agronomy and 6 among these hold Ph. D. degree. Two teachers with M. Sc. (Hons.) in agronomy are serving as lectures. The faculty is specialized in diverse areas of Agronomy that cover important aspect of crop production.

Teaching load in the department has been well distributed 10 to 12 for Assistant Professor and 12 for Lecturer. However, there is no senior faculty to provide leadership in agronomy at the college. The student-teacher ratio is quite satisfactory. Graduate students are equally distributed amongst the faculty for conducting research of their respective degree programs and giving due consideration to the aptitude as well as the area of research they are interested.

The faculty makes good use of quizzes, assignments, mid-term and final exams for evaluation of students in their course work. However, there is need to pay more attention towards project and seminars especially at post graduate levels to strengthen their communication and presentation skills. Course review reports are well prepared by each faculty member at the time of course evaluation. A program monitoring system exists. There is no formal system for training of newly induced faculty. Salary package and other fringe benefits of the faculty are reasonable and attractive. Faculty also believes that the working environment is very good. The faculty stability index is satisfactory. There is no national or international recognition of the faculty in terms of awards won. Same holds true for writing any text book and/or book chapter. The participation of the faculty members in professional seminars/conferences/workshops inland is nominal.

So far, 158 B. Sc. (Hons.) and 14 M. Sc. (Hons.) degrees have been awarded in agronomy at CADGK. This numbers seems to be too comfortable keeping in view the facilities available at the college. The graduate students need to be encouraged to compete for HEC sponsored indigenous scholarship program.

Job satisfaction of the faculty is reasonable and adequate opportunities exist for academic progress to those holding good academic credentials. The faculty members believe that the department degree programs are performing well except that there is room for upgradation of the section to the level of Department. Moreover, improvement in internship at undergraduate level is also needed. The faculty tries to adopt teaching and learning methods, and also believes in dialogue and discussion, however much needs to be done in this direction. Professional code of ethics is fully observed.

Criteria II: Curriculum Design and Development

All the courses offered at undergraduate and post graduate programs are adopted from the scheme of studies as finalized by HEC constituted National Curriculum Committee in Agronomy. Presently, the objectives of curriculum are vaguely defined, and partially supportive to degree programs, and are achievable. The contents of curriculum are satisfactory, compatible with current needs. These offer limited flexibility to offer choices for the students. There is need to incorporate courses on information technology so that graduates can meet the demands of modern tools in communication and dissemination of knowledge.

Student's perception about the quality, innovation and new knowledge is only fairly satisfactorily. There is shortage of latest text and reference books. The faculty and students rely primarily on the main library which has got a basic collection of textbooks. However, there is dire need to have access to reference books, and journals of good repute as well.

Duration of semester (19 weeks) is quite within the standard requirement of HEC. Completion of theory and practical courses are only satisfactory to some extent as has been evident from faculty course files, as well as the poor infrastructure available. The course registration and withdrawal policy is well spelled and with enough details. It is adopted without any discrimination. Admission to all programs is under well documented and properly notified policy.

A random verification by the AIC revealed that faculty member maintained course files but not as per standards laid down by NAEAC. Nonetheless, there was need to have a break up for laboratory experimentation, and recommendations need to be outlined for same course to be offered in next semester. Meeting of Board of Studies and Faculty are held and need to be scheduled more frequently and, off course, regularly. The students were generally satisfied about teacher's performance.

Criteria III: Infrastructure and Learning Resources

This section has enough space for faculty offices. There are three labs in the section that are distributed for teaching (2) and research (1), and working capacity of each is quite sufficient to meet requirements of students and faculty. Quality of lab equipment is only basic to meet the research needs of postgraduate students. The equipment, whatsoever available is also not properly utilized due to lack of operational funds. Some of the equipment was also reported to be out of order. There is hardly a single trained lab staff, and many a time personal recruited for other duty is working in labs. There is immense need for technical training of lab staff. Annul budgetary allocation for maintenance and operation of labs is highly inadequate.

Books are purchased at College level, and the funds allocated for such purchase are only nominal. Student's views about lab practicals were not encouraging, although they maintained notebooks with whatsoever they did. The number of total books and those purchased in past two years was only satisfactory to some extent. The section does not subscribe even a single foreign journal for its library. Library is equipped with computers, photocopier, and other tools. Library environment was quite suitable for peace of mind, and student's to library facility was only satisfactory. There was demand for broadening availability of more recent textbooks, reference material and internet facility.

Computers and internet facilities are available for faculty, and need to be further expanded to bring in reach of students. No computers are available for students especially when it comes to undergraduate level.

The College does not maintained a web site that needs to be developed urgently Buildings, covered area for lecture rooms as well as offices of faculty was found adequate. A proper computer lab and a common room were present at the college.

There is extreme scarcity of proper research area. Section has as few as 5 acres of land for conducting field research that lies quite away (about 2.5 km) from main campus. Research facility at the farm is very poor primarily due to lack of irrigation water. A lot needs to be done for making these facilities worth conducting research for an MS program. Nevertheless, there is need for mechanization of the farm so that students are trained keeping in view modern innovative technologies, and also research of high impact is carried out.

Criteria IV: Students Support and Progression

The admission response to degree programs is fair. On the commencement of each session about 10 to 15 undergraduates join the section, and this is fairly satisfactory when compared with other programs in agriculture. Similarly about 5 students join M. Sc (Hons.) program in each session. Yield index of the students in all programs is fine.

Merit based, HEC sponsored and some private sector local scholarships are available to students at both under and post graduate level. Interest free loans by banks are not administered.

One hostel is available and sufficient to meet requirements of boarding students. Sports facilities are not available to the students at the campus or at hostel.. CADGK has 6 buses that seems too less keeping in view the distance of the campus from main city. Medical facility to the students is limited to only very preliminary first aid.

Although academic counseling is present, but needs proper arrangement. The internship is compulsory for each undergraduate student but needed further strengthening. The student-teacher interaction as well attitude of students towards studies was encouraging. The student's attendance record was well maintained. Students perception about degree programs was quite positive and regularity in classes, class discussions were main features but there was more demand for emphasis on improvement of field work and lab experiments as well as visits to other sister organizations for expanding their vision. Students participate, only to some extent, in community welfare activities through professional societies.

Criteria V: Research and Consultancy Activities

The College receives annual research grant from the University. There is shortage of research grants from external sources as HEC, PARC or other donors based on competitive basis. Most of the research activities are limited to very scarce funding managed from local sources. There is no proper allocation of funds specifies for agronomy. The finding and outputs of research activities are published only to some extent in HEC approved/impact factor journals, and need to be improved a lot.

There is no constraint on the faculty to continue their research. Prersently no research collaboration exists between the faculty in agronomy and any other organization. Lack of competitive grant has been felt severely. There is no budgetary allocation for seminars and conferences. The faculty in agronomy renders advisory services to farmers, NGOs and private companies. None of the research findings have been communicated to farming community through booklets, broachers, leaflets, etc., and hence, needs great attention.

Criteria VI: Governance and leadership

The Vice Chancellor is the chief executive of the University and is assisted by the Deans of the Faculties, Principals of Colleges, Heads of the Departments and Principal Officers of the University. The organizational setup, rules and procedures, administrative control, financial resources are all well documented and defined. University catalogue is published every year. The operational budget is available to run the College, but a severe

shortage of research and development budget was realized by the AIC. The section need to be given more financial liberty for utilization of funds. The department does not have its own funds generating resources. The financial resources of the department mainly depend on the university. A placement bureau exits and is operational in the University, that is located far away from DGKhan. The section, or CADGK does not keep Alimni's profile, and same was true for calendar of activities. There is no Newsletter published at the moment that highlights various activities of the CADGK.

Criteria VII: Adoption of Best Practices

The process of curriculum revision is carried out as part of National Curriculum Revision Committee, and adopted as such. Improvement in teaching quality is being tried through class discussions and frequent visits to field area. Assessment of students is done through examination, both written and oral, during, and at the end of each semester. Feedback from students is sought through proforma filled by them at the termination of each semester. Postgraduate students seek advice from their supervisor and also search internet for acquisition of further knowledge. A quality enhancement cell (QEC) works at the University level and Principal office gathers information from respective sections to compile the annual report in this regards. The same is submitted to, and evaluated by University QEC.

SWOT Analysis

1. Major strengths

- 1. Most of the faculty in Agronomy holds PhD degree, six among these are assistant professors, and two are working as lectures. The faculty have an average teaching experience of ten years.
- 2. The faculty stability index is good.
- 3. Buildings, covered area for lecture rooms as well as offices of faculty is abundant.

2. Major weakness

- 1. Absence of senior faculty in agronomy.
- 2. Absence of proper facility that may help strengthen the communication and presentation skills of the students.
- 3. Absence of a well developed farm facility is a major issue.
- 4. There is no effort at present on preparation and submission of course review report regularly by each faculty member at the time of course evaluation.
- 5. Lack of state-of-the-art controlled-environment facility and a well-furnished computer lab at the departmental level.

- 6. Shortage of farm machinery and implements including the latest farm equipment and other farm machinery. A lot of effort needs on it for student training and a good quality post graduate research.
- 7. Course/s on information technology is missing from the curriculum at both under and post graduate levels.
- 8. Quality of lab equipment is inadequate to meet the research needs of postgraduate students.
- 9. Lab staff is only meagerly available. Annul budgetary allocation for maintenance and operation of labs is inadequate.
- 10. Funds for the purchase of books are insufficient. The section does not subscribe even a single foreign journal for its library.

3. Major opportunities

- 1. Job opportunities exist for students graduating in agronomy in both public and private sector organizations.
- 2. Faculty in agronomy is capable of providing technical guidance to the students and better research initiative can be taken by postgraduate students in improving their research plans; students needs to be encouraged to compete for competitive scholarships.
- 3. A lot of opportunity to win projects from national and international donors through competitive grants is there which can help overcoming the financial constraints in research.
- 4. Scope exists for transfer of technology by disseminating the findings of student and faculty research to farming community in the form of booklets, broachers, leaflets, etc.

4. Major threats

- 1. Ever deteriorating soil conditions are major threat due to high aridity index and Rodkohi rain storms.
- 2. Non-availability of water both for domestic as well as research needs is another issue that will pose continuous threat to the establishment of academic and research activity at CADGK.
- 3. Reduction of credit hours of general courses of agronomy B.Sc (Hons) Agri.
- 4. Trend of shifting emphasis from teaching to publications is developing.

Actionable Recommendations

 The farm facility need to be developed gradually. A continuous supply of good quality water is a prerequisite for establishment of an academic and research facility. A bold step need to be taken by investing in developing such a facility at permanent grounds.

- 2. Make the laboratories more functional by providing operational funds. A computer lab should be established for the students with the latest computers and internet facilities.
- 3. Recruitment of supporting staff on the basis of relevant qualification/experience for handling the scientific instruments/equipment safely.
- 4. Budget allocation for development, research; library and labs may be specified and be increased to meet the demands properly.
- 5. Funds should be allocated to attend international conferences/seminars.
- 6. Subscription of journals of good repute to expand the vision of faculty.
- 7. The credit hours of the general courses of Agronomy for B.Sc. (Hons) Agri. may not be reduced further.
- 8. The principle of merit/natural justice may strictly be observed for admission of students, selection/promotion of faculty/staff etc. to uphold merit and transparency.

Final Recommendation

Agronomy section at CADGK has basic physical infrastructure to cater the needs of present level of enrolment of B.Sc. (Hons) and M.Sc. (Hons).

On the basis of the inspection/evaluation, the AIC recommended accreditation of the degree programs of Agronomy at CADGK in the " Y_3 " category as per HEC rating system i.e. Degree Program not meeting some of the major criteria.

Signatures of AIC Members

	Name and Designation		Signatures
i.	Dr. Muhammad Bismillah Khan Professor University College of Agriculture	Convener	
	BZU, Multan		
i.	Dr. Abdul Khaliq Associate Professor Department of Agronomy University of Agriculture Faisalabad.	Member	
ii.	Mr. Naseer Alam Khan Secretary, NAEAC HEC, Islamabad	Member	
	Comments and Signatures of Chair	nan	
	I agree with the observations a report.	nd recommendations m	nade by the peer team in this
	Incharge Agronomy, CADGK		

Accreditation of Agriculture Education Institutions in Pakistan

In pursuance of the mandate as under clause 10 subsections (d) and (1) of the byelaws of NAEAC, as laid down by the HEC, an Accreditation Inspection Committee (AIC) comprising of the following scientists was constituted to review the Department of Agronomy, University College of Agriculture, BZU, Multan for its external assessment and the accreditation of its degree programs:

i. Dr. Muhammad Bismillah Khan

Convener

Professor

University College of Agriculture

BZU, Multan

ii. Dr. Abdul Khaliq

Member

Associate Professor

Department of Agronomy

University of Agriculture

Faisalabad.

iii. Mr. Naseer Alam Khan

Member

Secretary, NAEAC

HEC, Islamabad

Terms of References of the Committee (TORs)

Members of AIC visited the CADGK, on January 21-22, 2013. The objective was

- To validate the self-assessment report (SAR) of the degree programs (B.Sc. and MSc. (Hons.)) prepared by the department/discipline.
- To carryout external evaluation of the degree programs in a <u>transparent</u>, <u>neutral</u>, <u>holistic</u> and <u>participatory manner</u> for accreditation and rating of degree programs **based on evaluation criteria of NAEAC**.
- To submit synthesized and concise analytical report (7-8) pages consisting of short introduction, brief criterion-wise analysis, self-explanatory SWOT Analysis and explicit actionable recommendations based on the validation SAR and interaction with the chairman, Faculty members, students and support staff and alumni as well as detail on-site visit of physical infrastructure, facilities and other teaching-learning resources available for the offering of degree programs.
- To submit clear, precise and justified actionable accreditation and rating recommendations about the degree programs to the Chairman NAEAC.
- **Strengths:** Attributes (resources and capabilities) of the degree programs that can be helpful for achieving its objectives.
- **Weaknesses:** Attributes of the degree programs that may be limiting factor/detrimental to achieving its objectives.
- **Opportunities:** External conditions/factors that may help the degree programs to achieve or provide opportunities to improve its performance.
- **Threats:** External conditions/factors (or change in external conditions) that could damage the performance of degree programs.

Evaluation Criteria for Agriculture Degree Programs

Sr No.	Criteria	Points	Points Awarded	
		Assigned	1. C	.
Major (Criteria		M.Sc (Hons)	B.Sc (Hons)
1	Strength and Quality of Faculty	138		
2	Curriculum Design and Development	95		
3	Infrastructure and Learning Resources	95		
4	Students Support and progression	58		
	Sub - Total (a)	385		
Minor	Criteria			l
5	Research and Consultancy Activities	52		
6	Governance and Leadership	44		
7	Recent Innovations and Best practices	26		
	Sub - Total (b)	122		
	Grand Total (a+b)	507		

Name a	nd Designation	Signature	of Program Evaluator				
Criteria I: Str	ength and Quality of Faculty	138					
1.1 Full -Tim	e and Part - Time Faculty	30					
Regular and full-	Regular and full-time faculty, teaching core subjects.						
Designation	Full Time	Part Time	<u>Total</u>				
Professor							

Assistant Professor Lecturer	6 2		6 2	
20010101			Total	
1.1.1 Status of Faculty				
Full time Faculty required		Full tir	me Faculty in position	8
Visiting faculty required		Visitin	g Faculty in position	zero
	4, one for each res group			
1.2 Faculty Qualification Status of Faculty qualification		perience.		
Qualification		Number	Average Experience(Years	s)
Post Doctorate	_	0	10 years	
Doctorate	_	6		
M. Phil/M.Sc(Hons)	_	2		
1.3 Teaching Load	12			
Number of credit-hours tea teachers.	ching per w	veek, based on a	ctual number of differen	nt categories o
Designation		Cr	edit hours per week	
Professors Associate Professors	_			
Assistant Professors	_	15 credit hours	on average	

Lecturers		15 credit hours on average			
1.4	Use of Students Assessment	Instruments 12			
Asse	essment Instruments (Tick)	Adequately used	Inadequately used	Not used at all	
	Quizzes				
	Assignments	$\overline{\hspace{1cm}}$			
	Projects/seminars				
	Sessional tests				
	Mid-term				
	Final exams	$\overline{\hspace{1cm}}$			
1.5	Faculty Course Review Rep	orts 14			
	ime of course evaluation. ourse Review Reports (CRR): Regularly Occasio (Evidence of course review re	nallyCR	R submitted Rarely_		
1.6	Program Monitoring System	n 7			
Ade	quate program monitoring syste	em exists at the dep	artment level. $\underline{\hspace{0.2cm}}\sqrt{}$		
Mor	nitoring system exists but not in	plemented			
Inad	lequate monitoring system	, Monitoring s	system does not exis	t	
1.7	Training of Newly Inducted	Faculty 0			
	der to become an effective teach s training suitably designed to e	•	•		
Syste	ematic teachers training plan in	place			
Son	ne orientation but no formal train	ning plan			
No s	system of teachers training in pl	ace√			
1.8	Faculty Development and C	Career Planning	8		

Impro	vement plan of faculty qualification leading to PhD and Post-Doc etc.
	planned and implemented Poorly planned and rarely implemented Not ned at all
1.9	Salaries and Fringe Benefits 9
Attra	active Low
Evid	ence of implementation of incentives (if any)
1.10	Environment at workplace 2.5
Very	GoodGoodSatisfactoryUnsatisfactory
1.11	Faculty Stability Computed Index 4
Very	Good Good \ Satisfactory Unsatisfactory
1.12	Awards/Recognitions received by the Faculty 0
Suffi	icient awards Insufficient awards No awards\
1.13	Participation in Seminars/Conferences 0
Adea	quate ParticipationInadequate ParticipationNo Participation
1.14	Textbooks/Chapters of Books Written 0
Text	books written0 Chapters of books written0
Conf	Serence proceedings0
1.15	Graduate Research Supervision 6
Avei	rage No. of PhD Students supervised by each HEC approved Professor _0
Avei	rage No. of M.Sc Students supervised by each Faculty Member_3-4
1.16	Job Satisfaction 4
Very	much Satisfied Moderately Satisfied Least Satisfied
Reas	ons for Satisfaction/Dissatisfaction
1.17	Opportunities for Academic Progress 4
Adeo	quate Opportunities Inadequate Opportunities
1.18	Faculty Perception About degree Programs 03
Perfo	orming well Not performing well

Degree Programs need up-gradatio	n Yes $__$		_ No		
Reasons for not performing well D upgradation	ue to lack of r	esource	s poor		
1.19 Teaching-Learning Method	ls Adopted b	y the Fa Fully	-	12 Partially	<u>None</u>
Uses variety of appropriate instruction techniques.	onal				
Promote analytical and critical think	ing.	√			
Encourages questions from students	•	√			
Believes in dialogue and discussion.		√			
Professional code of ethics is observ	red.	V			
Criteria II: Curriculum Design 2.1 Curriculum Objectives of I	_		95 0		
Well definedVaguel	y defined		_ Not d	efined	
			<u>Fu</u>	ılly	<u>Partially</u>
Curriculum objectives supportive to	o degree prog	rams			
Objectives examined and found rel	evant	_ Objecti	ives are	achievable	
2.2 Curriculum Contents as	re: 08	I	Fully	Partially	None
Well structured and rich in conte	ents.			\checkmark	
Compatible with emerging need	s.			$\sqrt{}$	
Information technology integrate curriculum.	ed into the				$\sqrt{}$
Able to achieve students learnin	g outcomes.			$\sqrt{}$	
Flexible to offer sufficient choic students.	es for the			$\sqrt{}$	

2.3	Curriculum Revision	on	12		
	culum revision in the l	ight of <u>Na</u>	ational, <u>HEC</u> and <u>International</u> requirement	<u>s</u> and c	on the
Revi	sed regularly (every_2	<u>2-3</u> years) yes, Revised occasionally No revis	ion	
2.4	Students Perception	n about tl	he Curricula 6		
Stude	nts perception regardi	ng the qua	lity, innovation, new Knowledge and technology	nology	
Innov	ative		Good quality of course contents		
Curre	nt		Fair quality of course contents		
Obsol	ete		Poor quality of course contents		
Latest	technology		_		
2.5	Textbooks, Referen	nce Books	and Journals etc 7		
Prescr	ribed textbooks/referen	nce books	may be examined in the light of Internation	nal pra	ıctices
Highl	y recommended		Available in the uni/deptt. library		
Accep	otable		Old Edition/New Edition		
Sub-si	tandard		Available/Not available in the market	-	
Inadeo	quate				
	-				
2.6	Course Contact Ho	ours	8		
Total course		ted to thec	ory and practical work for effective teachin	g of di	fferent
More	than HEC guidelines	\checkmark	Average Contact hours for theory course	3	hrs
Suffic	eient		Average Contact hours for practicals	4-6	hrs
Insuff	ricient		Total Contact hours for a course	2-3	hrs
2.7	Completion of Cou	rses	8		-
Comp	· · · · · · · · · · · · · · · · · · ·	es during	the prescribed period as per official record	1	(To be

Very g	good, Sati	sfactory\	, Unsatisfactory	
2.8	Course Registration &	& Withdrawal Pol	licy 9	
Polic	y with adequate details_	Policy	with inadequate detail	s
Polic	cy not available	policy is well spell	ed	
Polic	ey adequately disseminat	ed to the students _		
2.9	Admission Policy)9		
Well	documented and notified	_\ Doci	imented but not notifie	ed
Appro	priately documented	Not	documented	
2.10	Maintenance of Cours	se Files (To be ver	rified) 8	
the co	ractice of maintaining course has been taught. A could become the basis	course file may inc	· ·	
	Lecture breakdown for Schedule of monthly/record. Breakdown of labora successful conduct. Listing of textbooks an Recommendations and nationed and well organized Program Evaluators may	mid-term tests are story experiments d other reference by suggestions related $\sqrt{}$, Not proper	pertaining to the cooks pertaining to the d to the course for the ly organized, Not r	ourse and record of course. next session. naintained
going	semesters.)			
2.11	Meetings of Board of	Studies/Faculty (1	Evidence of the meeti	ngs held) 13
Held	regularly_\ H	leld occasionally _	Never held	·
Regu	nlar and frequent meeting	gs of Board of Stud	lies√	
Char	nges/updating the curricu	lum during the las	t 2-3 years	-
Stak	eholders feedback is soli	cited and incorpora	nted in the curricula	_No
Mecl	hanism of stakeholders for	eedback exists		
2.12	Students Satisfaction	about Teacher's p	performance 07	
Very 1	much satisfied	Satisfied√_	Not satisfied	
Crite	ria III: Infrastructur	e and Learning R	esources 95	

3.1 Labs and their Cap	eacity 18		
No. of Research Labs	_1 No. of Teaching	Labs2	
Working capacity of Res	earch Labs Working	g capacity of Teaching Labs.	
3.2 Adequacy and Qu	uality of Lab Equipment	08	
Adequate	Fully operational	Good quality	
Inadequate $\sqrt{}$	Partially operational	√ Average quality	
Not available	Not operational	Poor quality	
3.3 Equipment Utiliza	ation 5		
Properly utilized	Reasons	for inadequate utilization	Lack of funds
Inadequately utilized	√ Reasons	for poor utilization	
Poorly utilized	Apparatu	ns/Equipment out of order	
3.4 Availability and (Qualification of Lab. Stat	ff 6	
Available	V Partly Available	Not Available	
Trained for the job	Partly Trained	$\sqrt{}$ Not Trained	
ighly Experienced	Moderately Experience	d Least Experienced	
Lab Staff with profession	onal qualification	None	
3.5 Lab safety measu	res 0		
 Availability and protocols 	use of lab manuals and	Available Not a	available _

• Lab safety equip	oment and manual	Available	Not available _\v
3.6 Annual Budget	Allocation for Mainten	ance and Operation	of Labs 06
More than Adequate	Adequate		
Inadequate	√ Amount Allocate	ed No allocat level	ion at department
3.7 Library Annua	l Budget 04		
Main Lib. Annual budg	et Rs.50000 Department	Lib. Annual budget_N	Not specified_
More than Adequate	Adequate	Inadequate	 √
3.8 Students Views	about Lab Practicals	03	
Conduct of Pr	acticals	Coverage of C	Course practicals
Regular		All practicals arrrang	ged
Irregular		Some of practicals a	rranged
			√
		Yes	<u>No</u>
Practical Note-books	complete and maintained	√ 	
3.9 Subject Books:	Total and Purchased (d	luring Past two year	s) 06
		<u>Main Librai</u>	<u>'Y</u>
	Text Boo	oks <u>Ref. Book</u>	s <u>Total</u>
Total No. of books	<u>15</u>	<u>98</u>	<u>113</u>
Books purchased Las	t two years		<u>10</u>
No books purchased			

Department Library

	Text Books	<u>Ref.</u>	<u>Total</u>
Total No. of books		<u>Books</u>	
Books purchased Last two years	No lib. At dept level		
No Books purchased		 	
3.9 Subscription to Foreign Journ	als during last two y	vears (Rs	0
Adequate number of magazines and hard copies.	journals for each pro	gram may be subs	scribed through
Number of Foreign Journals Subscri	bedZero_	_	
3.10 Local and Foreign Subject 3	Journals 2.5		
Local Journals1 F	oreign Journals		
Sufficient and variety available	Sufficient but v	ariety not availab	le
Insufficient $\sqrt{}$ Non – exi	sting		

3.11 Book Bank 0

Availability of <u>discipline textbooks</u> and reference books in the central library for borrowing by the students for <u>the whole session</u>.

Suf	ficient	Tot	al No. of books in	book bank			
Exist but insufficient			Books purchased for the last two years				
Doe	es not exist	√ 					
3.12	Library Equipment	05					
	ment of the central libra and audio equipment, C	•		iers, typewriters, scanners, etc.			
Com	puters1_Photo	copiers1	l Typewriter	_0Scanner0			
Vide	o & Audio Equipment_	_0 CD	Writer1_	-			
3.13	Library Space/enviro	nment 0	2				
No. of	f Chairs/Seats25	_ Peace of mi	nd $\sqrt{}$ Lack of	least noise√			
3.14	Students Access to va	rious Faciliti	es 06				
			Sufficient	<u>Insufficient</u>			
Comp	uter seating capacity			√			
Online	e surfing capacity			$\sqrt{}$			
			Yes	<u>No</u>			
Stude	nts Access to Library Fa	cilities	\checkmark				

3.15	Students opinion about quality of services provided by the library 07						
Cor	mments: Scarcity of space, sea	iting, boo	ks, copying and resources				
	There is optimum space available for students.						
3.16	Faculty/Students Computer	r Ratio	03				
Cor	mputers for Faculty	1/1	Computers for Students	None			
Cor	mputers for M.Sc. (Hons)	2	Computers for PhD Scholars				
3.17	Website of the Institution/E	_					
Mair	ntained and updated regularly_	·	Maintained but not updated				
No V	Website√_						

3.18 Buildings and Total Covered Area 04

Departmental building infrastructure <u>as per academic and administrative requ</u> Covered area (Sq.ft)	nirements. Total	
3.19 Class Rooms and Faculty Offices 04		
No. of Class rooms6 Covered area		
Class rooms with multimediaNone No. of Faculty offices5		
Faculty office Covered area Faculty offices with internet0_		
Computer lab1 Common room1		
3.20 Experimental Area and Farm Machinery 05		
Total Farm area (acres)		
5 Distance from the Department	2.5 km	
Buildings at the Farm		
None		
Adequate Rsearch facilities for post graduate students	Not available	
Details of Farm Machinery & Equipment (List)	Low	
Criteria IV: Students Support and Progression 58 4.1 Admission Response to Degree Programs of the Discipline 03		
Overwhelming Moderate\(\sqrt{\begin{subarray}{cccccccccccccccccccccccccccccccccccc		
4.1.1 Annual Intake 03		
More than requirement Average intake in B.Sc (Hons)	5 th Semester 25	
	4-5	5
According to requirement Average intake in M.Sc(Hons)	1 st semester	

4.2 Yield Index 04

Yearly percentage of the graduating students with respect to total admission in a year.

Academic Year	Students Enrolled		Students Graduated		
	B.Sc (Hons)	M.Sc(Hon s)	B.Sc (Hons)	M.Sc(Hons)	
2008-09	18	7	18	4	
2009-10	18	6	18	3	
2010-11	20	4	19	5	

4.2.1 Dropouts 3.5

Average No. of dropouts in B.Sc. (Hons)__1_, No. of dropouts in M.Sc (Hons)__5_

4.2.2 CGPA of Students of Degree Programs for the last three years 3.5

	Highest and lowest CGPA	Average CGPA	
B.Sc. (Hons.)	3.83//2.65	3.24	
M.Sc. (Hons.)	3.90/2.01	3.45	

4.3 Financial Support to Students 2.5

Various scholarships and interest-free loans, the students may receive from various sources.

Scholarships awarded by the University

	Merit Based	Need-Based
	8	
B.Sc (Hons)	8	
M.Sc (Hons)		

4.4 Availability of Interest- free Loans 0

Adequate	Inadequate	Not Available √

4.5	Students Schol	arships opportı	inities 03			
	Adequate					
				1		
	Inadequate		Scholarships	2	AlGhazi Tra	ctor and FFC
			Sources	3	Agronomy a	nd SS
4.6	Availability of	Hostel(s) Acco	mmodation	04		
	Adequate _	√ Inadeq	uate			Poor
	No. of Hostels	1 Capaci	ty For Housing	stud	ents	130
4.7	Convocation H	Iall/Auditoriun	n 02			
	Adequate	Inadequate	1 N	ot A	vailable	
4.8	Sports Facilities	(swimming poo	ol, gym, play gr	roun	ds, Indoor ga	mes etc) 0
1	Adequate	Inadequate		Do	es not Exist _	_√
4.9	Transport faci	lities for studer	nts 03			
A	Adequate		No. of	unive	ersity buses	6
Iı	nadequate	$\sqrt{}$	Total S	eatin	g capacity	
			<u> </u>			
N	lot available					
4.10) Medical Facili	ties for Faculty	and Students	02	2	
	Adequate	Inadequa	te $\sqrt{}$ only first	st aid	l_ Not Availal	ole
4.1	Academic Cou	nseling 3.5				
Gui	dance available to t	he students fron	n teachers beyon	nd te	aching hours.	
We	ll organized√	Unarranged &	occasional	1	No counseling	; at all
4.12	4.12 Internship/Project Training 08					

8th semester Undergraduates internship/project training carrying (5) credit hours or Engagement of students in practical training.
Compulsory Reasonable provision V No provision
Evidence/verification of internship from department
4.13 Students Interaction with Teachers 02 Very Encouraging Encouraging √ Discouraging
4.14 Students Attitude Towards Studies 1.5 Very Encouraging Encouraging √ Discouraging
4.15 Students Attendance Record 05 Properly maintained√ Improperly maintain Not maintained at all
Attendance % required 75%
4.16 Students Perception about Degree Programs 03
Best Aspects of the degree programs Regularity in classes
Class discussion
Aspects of the degree programs that could be improved.
Practicals need to be strengthened
Visits to research stations and other practices at different locations
Development of section to the level of department
4.17 Opportunities/resources for students to participate in seminars/conference exposures etc 02
Very poor
4.18 Involvement of students in the community welfare parties by organizing university students club. O4 Art club, Agrarian Society, Blood donor club, Naat club and Recreational

	tour club				
Crit	eria V: Resea	rch and	Consultan	ncy Activities 52	
				from HEC and other sources 10)
Amo	ount of Research	grant du	ring Past th	nree years Rs. Only college budget	
Reg	ular/Irregular		Осса	sional	
5.1. 1	1 Utilization of	Annual	Research	Grant 08	
Facu	ulty Research Rs Activities_15-			Research Rs. 15-20,000/- only	Both
5.2	Faculty Publi	cations	(Other tha	an Student Thesis) 16	
Each jour	<u> </u>	is expec	ted to publ	ish at least 1-2 good papers in a rep	uted referred
In	npact Factor Journ	nals _	55	HEC approved Journals	60
O	ther Journals	_		All Types of Proceedings etc	0
5.3	Continuity of	Faculty	Research	03	
Ad	equate	Ina	dequate	_√ Does not exist	
5.4	Academic Co	llaborat	tion (Meeti	ings, Seminars, Journals, Researc	h Projects) 0
	collaboration can	be quite	e effective i	if the objectives of the collaborative	programs are
			Collab	porating agencies	
1.				2.	

3.			4.	
5.6]	Budgetary Allocations for S	Seminars and Co	onferences, etc (last 3 y	ears) 0
Amo	unt Allocated Rs.			
5.7	Funded Research Projects	underway and c	completed during last 5	years 0
Projec	cts Completed Proje	ects Underway	Projects in pipeline	:
5.8	Advisory Services render	ed to other Orga	anizations 02	
	<u>Org</u>	ganization receivi	ng services	
1.	FFC	2.	Pesticide companies, E	Biosciences,
3.	Engro	4.	NGOs, Agriforce	e, NRSP
5.9	Dissemination and Use of	f Research Resul	lts 1.5	
	ence of Publication and disse	-	,	klets, brochures
leafle	ts, flyers, etc)	02		
5.10.	Organize the following d	uring last 3 year	s 11	
	Activity	<u>Yes</u>	<u>No</u>	<u>Number</u>
•	Farmers field days	$\sqrt{}$	_	3
•	Zari Mella Stall	$\sqrt{}$	_	3
•	Farmers Moot	$\sqrt{}$		3
•	Farmers Colloquia	$\sqrt{}$		3
Crite	ria VI: Governance an	d Leadership of	the Institution 44	
6.1	Administrative Authority	y/Governance	08	
Clear	ly defined $____$ vague	ly defined	Status not defined	
6.2	Organizational Setup	08		

Orga	nizational Setup of fina	ncial and academic	e infrastructure.	
Well	laid out√	Overlapping	Weak	
6.3	Rules and Procedur	es Documented	11	
Wel	l documentedNo	t appropriately doc	cumented_√ Not documented	mented
6.4	Administrative Con	trol 0		
Acado	emic and administrative	e powers delegated	to essential organs.	
Powe	rs clearly delineate	Not clearly de	elineated not deli	neated_√
Highl	y Centralized√ N	Ioderately Centrali	zed Decentralize	ed
6.5	Financial Resources	06		
Finan Resou		to the Department	from various sources. S	tability of Financial
Highl	y stable	Stable	_Existing but unstable_	√
6.6	Operational Budget	5		
Alloc	ated current budget cor	npared with the rec	uired budget of the Dep	artment.
Total	operational budget req	uirement Rs1.0	00 million	_
Avail	able Operational Budge	et RsZer	0	
6.7	Development/ Resea	arch Budget 02		
	et available to departmo years.	ent for Research de	velopment & administra	tive facilities for last
Budge	et for last three years	Rs60, 000/-		
6.8	Placement Bureau	0		
			u and maintain record of nd interact with relevant	
Exis	ts and operative	Exists but not ope	rative Does not e	exist√_
6.9	Alumni's Profile	0		
	•	-	abase of outgoing gradua bureau and from alumni	
Satis	sfied Un	satisfied	Not available	

6.10 Calendar of Activities 04

nnual calendar i	s available√ Not avai	lable Not prepared
11 News Bulle	etin/Magazine 0	
Department regu	ılar issues:	
Nowelattor	Nowe Bulleting	Magazine
	doption of Good Practices	26
	cribe at least two good prod d Development.	actices adopted related to Cur 8
	_	ation, Field observations, feedback
from farme	er community	
2.	External and University const	ıltants
2.	External and University const	ıltants
2.	External and University const	ıltants
2.	External and University const	ultants
2 Please indi	cate at least two good practice	es adopted pertaining to quality
2 Please indi	cate at least two good practice s teaching methods by the fac	es adopted pertaining to quality ulty. 6
2 Please indi	cate at least two good practice	es adopted pertaining to quality ulty. 6
2 Please indi	cate at least two good practice s teaching methods by the fac	es adopted pertaining to quality ulty. 6
2 Please indi	cate at least two good practice s teaching methods by the fac	es adopted pertaining to quality ulty. 6

_	2.	Group discussion
_		
7.3		Good Practices adopted for Students – Teachers Assessment 6
-	1.	Quiz, Mid term/final exams, MCQS, Assignments
_		
-	2.	Oral exam at the end of semester, Performance in practical
7.4		Good Practices adopted for Knowledge Acquisition and Skill Development in Graduate Students 6
	1.	Visit to university labs, other research organization
	2.	Internship

Standards/Criteria for Degree Awarding Teaching Departments

S#	Parameter	Criteria /Standard
1.	Faculty Strength	Minimum 6 teachers per department
2.	Visiting faculty	20% of teaching staff
3.	PhD Qualified Faculty	At-least 5 PhD
4.	Faculty composition	1:1:2:2
5.	Teacher student ratio	1:20
6.	Support staff vs. Teaching staff ratio	1:2
7.	Teaching load (Credit Hrs/Week)	Prof-8, Associate-8, AP- & Lecturer-12
8.	Revision/updating of curriculum	After Every 2-3 years
9.	Feedback on curriculum	Essential from all stakeholders*
10.	Objectives of curriculum	Mandatory to highlight as preamble to curriculum
11.	Text books/Reference books	One set of textbooks/reference books in department library
12.	Maintenance of course files by the teachers	Mandatory to maintain an updated and complete file of each course offered by a faculty member (evidence)
13.	Meetings of Board of Faculty and Board of Studies	Regular meetings with minutes and
	Studies	follow-up actions (evidence)
14.	Yield Index **	More than 75% of intake
15.	Easy access to counseling and guidance facilities for students	Essential
16.	Students scholarships	At-least 10% of the total students
17.	First-aid & medical facility for faculty & student	Adequate medical facilities essential
18.	Transport facility for commuting	Adequate transport facilities essential
19.	Research budget for students & faculty Research	At-least 10% of the department budget

20.	Internship/hands on trainings/projects	Mandatory for B.Sc and M.Sc (Hons)
21.	Class rooms space	12-15 sq. ft per student
22.	Minimum number of class rooms	Two per department
23.	Normal class size	40 students
24.	Class size with Multimedia	60 students
25.	Seminar room	One
26.	Reading room	One
27.	Committee room	One
28.	Department library	Essential. HOD maintains a small department library of text books and theses.

^{*} Includes parents, alumni, peer faculty, employers and students.

Standards/Criteria for Degree Awarding Teaching Departments

S#	Parameter	Criteria /Standard
29.	Library space for students	30-35 sq. ft per student
30.	Availability of required library facilities (As per Evaluation Manual)	Essential
31.	Laboratory	At least one functional lab with needed lab equipment for degree programs.
32.	Laboratory space	25-30 sq. ft per student
33.	Purchase of Chemicals and Glassware	Adequate budget provision essential
34.	Repair and Maintenance of Lab Equipment	Budgetary provision as per requirement
35.	Laboratory Manuals/Catalogues	Essential
36.	Safety and Security measures in the Laboratory	Essential

^{**} Yearly percentage of graduating students with respect to admission

37.	Students Lab Manuals/Practical Notebooks	Each student maintains lab practical notebook
38.	Qualification of Laboratory staff	Relevant qualification or at-least F.Sc /B.Sc
39.	Capacity building plan for technical support staff	Essential
40.	Research Journals	At least 15 current journals of the subject. Access to electronic journals be provided. Subscription to Foreign journals desirable.
41.	Books in the main library	At least 100 text books/reference books from major international/national publishers
42.	Computers	1 for 5 students
43.	Internet service	Access should be provided to at-least graduate students
44.	Access to online journals	Essential for all graduate students
45.	Minimum covered area of department	100 sq. ft per student
46.	Research Publications	At least 1-2 Research papers/year by each faculty member
47.	Hostels space for cubicles	80-120 sq.ft
48.	Dormitories	50-80 sq. ft
49.	Completion of courses (Theory)	Unsatisfactory (< 75% coverage)
		Satisfactory (> 75% coverage)
		Excellent (100% coverage)
	Practical:	Unsatisfactory (< 75%) Satisfactory (> 75%)
50.	Eighth semester internship for B.Sc (Hons)	Internship project report (evidence) essential