

G. Name of the Programme: M.Sc. (Ag.) in Biochemistry

6.4.1. Brief History of the Programme:

Inception

- Since the establishment of the Department in 1998 through dissociation from the parent department of Agricultural Chemistry and Soil Science, the Degree programme was initiated
- The earlier nomenclature of the degree programme in ‘Agricultural Biochemistry’ has been modified as ‘Biochemistry’ in compliance with that proposed by the BSMA Committee for basic sciences – ICAR

Objectives

- Caters teaching and research, even with its limited number of faculties, aiming at
 - generation of trained resource persons being able to contribute the field of academics and research with novel ideas and findings
 - training students with the cutting-edge technologies so as to serve both the public and private sectors
 - equip students to be capable of being self-employed (job-givers instead of job-seekers)

Accomplishment

- **Nine (9)** students have successfully completed M Sc(Ag) programme during last 5 years.
- **One (1)** research paper have been published from the M Sc(Ag) dissertation work; **Two (2)** communicated and under review
- **One (1)** student presented paper in a national conference; another **one (1)** student presented in International webinar
- **One (1)** has been provided job in Private sector.
- **One (1)** published popular article in Telugu magazine “Krishi Jagaran”
- There has been reflection of enrollment of Girls students at PG level.



6.4.2. Faculty Strength

SL. No.	Type of Faculty	Sanctioned Faculty	Faculty in place	Vacant position	Faculty recommended by the ICAR
1.	Professor	1	0	1	0
2.	Associate Professor	2	1	1	0
3.	Assistant Professor	3	0*†	3	1

Note: *One Asst. Professor was in service (as a Professor) till March 2021; Another Asst. Professor superannuated in 2013, was continuing till August 2018.

†One Retd. Guest Professor catering a total of 30/ 45L on ave./sem, was continued to be engaged, in addition.

Documentary evidence against engagement of Guest Faculty:

The dearth of teachers in Biochemistry has been duly recognised and continually being addressed by the University in the past through providing with guest Faculty(ies) from time to time. Some documentary evidences have been appended below for reference, the base file is available with the Department office:

The collage consists of five documents:

- Top Left:** An order dated 22.08.2012 regarding the engagement of Mrs. Nilima Karmakar as a Part-time teacher. It mentions her remuneration of Rs. 250.00 (Rupees two hundred fifty) per lecture.
- Top Middle:** A note dated 19.06.18 regarding the engagement of a guest faculty member for the 2018-19 session. It lists the names of the faculty members and their respective courses.
- Top Right:** A letter dated 06.09.2018 from Prof. Srikantha Das, Dean, to the Vice-Chancellor regarding the engagement of a part-time teacher for the 2018-19 session.
- Bottom Left:** A proposal dated 12.04.2018 for the engagement of a guest faculty member for the 2018-19 session. It includes details about the faculty member and the courses to be taught.
- Bottom Middle and Right:** Two more proposals and correspondence documents, including one dated 12.04.2018 and another dated 10.02.2018, discussing the need for guest faculty and the proposed arrangements.



6.4.3. Technical and Supporting staff

SL. No.	Type of Staff	Sanctioned Staff	Staff in place	Vacant position	No. of Staff recommended by ICAR
1.	Technical Assistant	3	0*	3	1
2.	Office Assistant	1	0	1	1
3.	Lab. Attendant	3	1	2	
4.	Helper (Laboratory)- Grade I		1		
5.	Record keeper		1		

*Outsourcing

*Registrar's order vide Reference No. W & W/10/A/2009-2010/L-1502 dated 31.12.2014 (See Annexure -II)

6.4.4. Classrooms and Laboratories:

6.4.4.1. **Number of Classroom:** One with dimension of 420 sq. ft. and having 30 sitting capacity

6.4.4.2. **Number of Functional Laboratories: 4**

Sl No.	Name of Laboratory/ Facility	Area (Square-metre)	No. of Supporting Staff Attached
1	Instrumentation Laboratory	40.88 (4 students)	One as additional duty
3	Ph.D. Laboratory	55.74 (8-10 students) 52.95 (8-10 students)	One
4	Enzyme laboratory	44.96 (5 Students)	
5	Inoculation chamber	9.29 (one student)	

6.4.4.3. **List of major equipment, laboratories, farm facilities, workshops and other instructional units**

Category	Total Number	Space (sq. m)	Facilities	Instruments with specifications
Instrumentation lab.	1	44.88	Sophisticated Instrumental facilities for the PG students (3-4 at a time) of the Department	<ul style="list-style-type: none"> Refrigerator LG double door Visible spectrophoto-meter: <i>Two</i> nos. (Systronics Models -166 & 104) UV-Visible spectrophotometer (Jasco, V630) HPLC (Jasco 'MD2010 plus' with PDA detector, 'PU-2080 plus') Computer+Printer



6.4.4.3. Cont..List of major equipment, laboratories, farm facilities, workshops and other instructional units

Category	Total Number	Space (in sq. ft.)	Facilities	Instruments with specifications
PG Practicals and research lab (Two)	PG Lab-1	55.74	For working of 8-10 PG students	<ul style="list-style-type: none"> • BOD incubator • Refrigerator LG double door • Air oven • Digital balance • Heating mantel for soxhlet apparatus – set of five units • Temperature controlled water bath • Borosil brand all-glass water distillation unit • Double distillation unit
	PG Lab-2	52.95		<ul style="list-style-type: none"> • Kjeldahl Digestion-distillation unit • One Deep freezer • Cold Centrifuge Remi C20 • Centrifuge Remi R24 – <i>Two</i> nos. • Shaker water bath • Air oven • Muffle furnace
Enzyme lab	1	44.96	For working of 2-3PG students at a time	<ul style="list-style-type: none"> • Computer+printer+scanner • Godrej double door freezer • Kelvinator single door freezer • Borosil brand dist. water plant • Controlled temperature water bath • An AC cubicle with Digital balance; Shimadzu, Electrophoresis power pack, Systronics
Inoculation chamber	1	~9.29	For One PG student at a time	<ul style="list-style-type: none"> • Laminar Air flow machine

6.4.4.4. Justify whether these facilities are sufficient to meet the course curricula requirement:

Five seats have been allotted for admission to M. Sc. (Ag) programme till date, successfully catering most of the practicals and Masters research as per the recommended syllabus with this available facility.

6.4.4.5. Number of theory batches for the Degree Programme- 1

6.4.4.6. Number of Practical Batches for the Degree Programme-1



6.4.5. Conduct of Practicals and Hands-on-Training:

With the available infrastructural facilities, it is possible to cater almost 90% of the practicals and are being done.

Practical Manual Published:

Course No.	Title
ABC-501	Practical Manual on Basic Biochemistry
ABC-503	Practical Manual on Food and Nutritional Biochemistry
ABC-551	Practical Manual on Molecular Biology

6.4.6. Supervision of students in PG Programmes:

6.4.6.1. Total Number of Students pursuing the Degree at Present: 7

6.4.6.2. Total Number of faculties supervising the Students: 1

	2016-17	2017-18	2018-19	2019-20	2020-21
No of students in Master Degree Programme	Nil	3	5	6	7
No of Eligible Teachers for supervision	2	2	2	2	2*

*No. of eligible teachers for supervision decreased by one due to retirement of one teacher in March 2021; so presently One teacher is supervising 3 students

Eligible Criteria to become a PG Advisor:

(Clause 4.08 of the BCKV Regulations regarding Masters' Degree Programme, 2019)

4.08 Advisement:

A Chairperson shall be assigned to each student by the Head of the department in consultation with the Board of Studies (BOS) from amongst the internal member of BOS in which the student is registered. The chairperson must be associated with regular post graduate teaching program of the concerned department. The students should be allotted to the Chairpersons following the norm as laid down below.

- (i) Head of the department, in consultation with the Board of Studies, will prepare a list of eligible teachers according to seniority, keeping continuity of the previous years.
- (ii) Student will not be allotted to the teachers having less than (2) two years of regular service in the Viswavidyalaya at the time of allotment of the student.
- (iii) Student will not be allotted to a teacher when he /she is on lien.

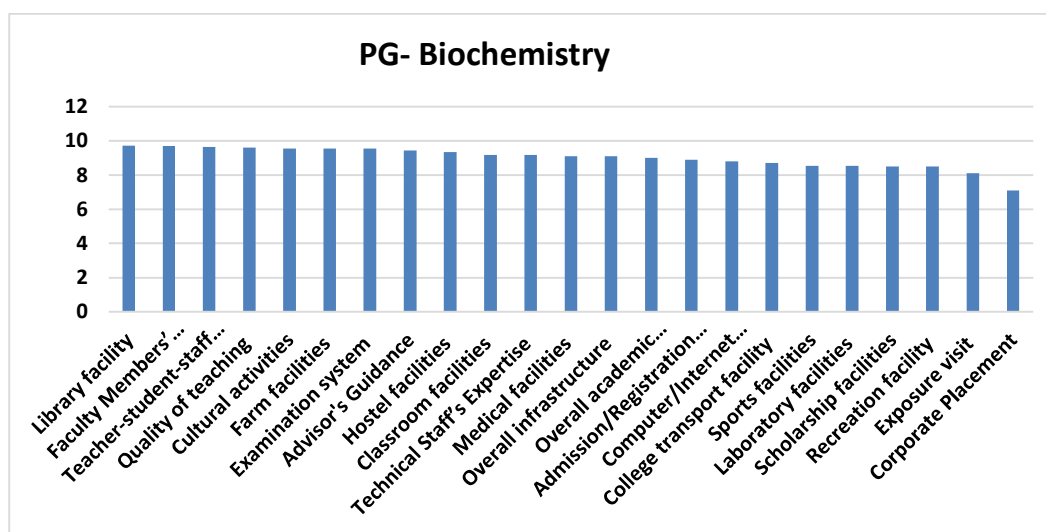
* Documentary evidence attached as annexure - I



6.4.7. Feedback of stakeholders

6.4.7.1. Mention the feedback mechanism (duly supported by the documents)

Feedback from the students was conducted in Google Forms using standard questionnaire (24 questions) developed on the basis of comprehensive dimension of Agricultural Education in BCKV campus. The dimension covered all the physical and academic facilities provided by the University. The responses were collected on a 10-point scale (1 denotes poorest facility and 10 denotes excellent facility) from the students of this programme. Individual responses were analyzed statistically (by computation of weighted average of every facility as perceived by the students) for the programme and the result was graphically presented in the SSR. As a documentary evidence, individual responses collected from the students' email ID through Google Forms have been stored in our computer (Google Drive). On demand, of ICAR Peer Review Team, the link for the individual responses can be shared.



Comment: Masters' degree students of Biochemistry Programme are happy with nearly all the facilities provided by the University. Though, facilities like Corporate Placement and Exposure Visit have scope for improvement.

6.4.7.2. What action the University has taken to address the issues raised in the feedback?

Action taken

The feedback reports were shared with concerned sections of the university. Students responded very positively with regards to majority of the facilities provided by the university. However, with respect to timely publication of results and corporate placement, there are ample scope of improvement. Considering this feedback, the university has taken administrative



actions for publication of results within stipulated period as reflected in the circulars of the concerned authorities. As corporate placement, to a great extent, is beyond the purview of the university itself, the Placement Cell continuously in touch with the potential employers to utilize the vacancies in favour of BCKV.

Impact

We are expecting very positive impacts in near future on these issues as some steps have already been taken in recent times as mentioned above.

4.6.4.8. Student intake and attrition in the programme for last five years

Academic Year	Sanctioned strength	Actual intake	Attrition (%)
2016-17	6	0	0
2017-18	6	4	25.0*
2018-19	6	3	33.3*
2019-20	6	5	20.0*
2020-21	6	3	0

*The higher attrition level is solely due to the less total number of admitted students in a batch; so, departing the programme by one student through getting job etc., is reflected by a higher % value.

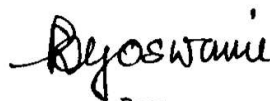
6.4.9. ICT Application in Curricula Delivery:

One LCD Projector and computer – is sufficient to deliver the curricula in PG theory classes; Practicals and dissertations are being run successfully with the available equipment and laboratory facilities.

I, the **Dean, Prof. Subhendu Bikash Goswami**, Faculty of Agriculture, hereby certify that the information contained in the Section 6.4.1 to 6.4.9 are furnished as per the records available in the college, and degree awarding university.

Place: Mohanpur

Date: 02-11-2021



Dean
Faculty of Agriculture
Bidhan Chandra Krishi Viswavidyalaya
Mohanpur, Nadia, West Bengal

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(Signature of Dean of the Faculty with Date & Seal)

