

J. Name of the Programme: Ph. D. Programme in Molecular Biology and Biotechnology

6.4.1. Brief History of the Programme:

Ph. D. in Agricultural Biotechnology was started in 2013-14. However, it is renamed as **Ph. D. in Molecular Biology and Biotechnology in 2021**. The thrust areas of teaching and research are molecular breeding, molecular diagnostics, recombinant DNA technology, plant tissue culture & genetic transformation, genomics & proteomics, bioinformatics.

Objective

- To strengthen PG teaching & research, and development of manpower, as well as to initiate basic and applied research to meet the demand of the public and private sectors.

Accomplishment

- o One student is serving as Assistant Professor at Uttar Banga Krishi Viswavidyalaya, State Agriculture Universities West Bengal.
- o Two students are working as Assistant Professor in private universities namely Swami Vivekananda University, Barrackpore; and Sister Nivedita University, Kolkata.
- o Two PhD Scholars are working as Research Associate in different projects at different University across the country.
- o Two students have been appointed in R & D division of private organization.
- o Five students qualified ICAR-NET.
- o One student qualified Jawaharlal Neheru Memorial Fund,
- o One student qualified UGC-Minority Fellowship,
- o One student qualified DBT-JRF,
- o One student qualified GATE-Biotechnology,
- o One student qualified GATE-Life Science,
- o One student qualified National Fellowship for OBC,
- o One student qualified Swami Vivekananda Fellowship for Single Girl Child Scholarship during their study in our department.



6.4.2. Faculty Strength

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

6.4.3. Technical and Supporting staff

SL. No.	Category of Staff	Sanctioned Staff	Staff in place	Vacant position	No. of Staff recommended by the ICAR
1.	Technical Asst Gr.-III	1	1	0	
2.	Field Assistant Gr. II	1	1	0	
3.	Laboratory Attendant GR. III	1	0	1	
4.	Junior Assistant	1	0	1	
5.	Junior Storekeeper	1	0	1	
6.	Office Attendant Gr. III	2	1	1	

6.4.4. Classrooms and Laboratories:

6.4.4.1. Number of Classroom: One

SI No.	Class room	Area (Square-metre)	Sitting capacity
1.	One PG Class room	48	15 students

6.4.4.2. Number of Functional Laboratories: 4

SI No.	Name of Laboratory/ Facility	Area (Square-metre)	No. of Supporting Staff Attached
1.	General Laboratory	48 (15 students)	2
2.	UG Laboratory	60 (30 students)	
3.	Plant Tissue Culture Laboratory	24 (05 students)	
4.	PG laboratory	60 (15 Students)	

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

SL. No.	Name of Laboratory/ Facility	List of major equipments and facilities
1.	General Laboratory	Deep freezer, Hot air oven, Double distillation set (glass), Steel distillation set, Water bath
2.	UG Laboratory	Electronic balance, High speed centrifuge, Laminar Air Flow, UV trans-illuminator, Gel documentation system, Deep freezer, Hot air oven, pH meter, Micro-centrifuge, PCR Machine, Electrophoresis System, Water bath, UV-vis Spectro



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

SL. No.	Name of Laboratory/ Facility	List of major equipments and facilities
3.	Plant Tissue Culture Laboratory	Orbital Shaker, Electronic balance, Laminar Air Flow, Deep freezer, BOD incubator. pH meter, Normal Shaker, Incubator shaker (4°C - 60°C), Plant Growth Chamber, Glass bead sterilizer
4.	PG laboratory	Electronic balance, High speed centrifuge, Laminar Air Flow, Vertical gel electrophoresis, UV trans-illuminator, Gel documentation system, Deep freezer, BOD incubator, pH meter, Orbital shaking incubator, Deep freezer (-80), UV-Vis Spectrophotometer, PCR Machine, Electrophoresis System, Water bath

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

In respect of conducting practicals as per curricula, these facilities are good enough for successful accomplishment with some limitations of space and human resources.

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 Practical and Hands-on-Training:

Approximately 90% of the practical syllabus is successfully done with the available facilities. Facilities are given individually to students to make them skillful enough for the entire practical modules. The department has limitation with respect to human resources (Non-teaching staff in particular) and space, which will be resolved very soon as committed by the Administration.

6.4.6. Supervision of students in Ph. D Programme:

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 : 2

	2016-17	2017-18	2018-19	2019-20	2020-21
Number of Students	6	7	4	6	7
Number of eligible Faculty	2	2	2	2	2

Eligible Criteria to become a PhD Advisor:

(Clause 6.03 of the BCKV Regulations regarding Doctoral Degree Programme, 2019)

6.03. Recognition of chairperson / Member of Advisory Committee

- (i) A teacher of the Viswavidyalaya as defined in the Act having at least three (3) years of research and/ or teaching experience after a doctoral degree and at least seven (7)



publications after the doctoral degree or joining in service as applicable in the NAAS/ UGC rated journals and /or peer reviewed journals with impact factor as approved by the Board of Studies of the concerned department and subsequently by the PG-UG Council of the respective Faculty, if required, may be recognised as chairperson / member of the Advisory Committee of a student under doctoral degree program.

- (ii) A teacher of the Viswavidyalaya without Doctorate degree but having at least 10 years research / teaching experience and at least seven (7) publications in the NAAS/ UGC rated journals and /or peer reviewed journals with impact factor as approved by the Board of Studies of the concerned department and subsequently by the PG-UG Council of the respective Faculty, if required, may be recognised as chairperson /member of Advisory committee of a student under doctoral degree program.
- (iii) The teachers of the Viswavidyalaya who have registered themselves for the doctoral degree programme shall not be eligible as the Chairman / Member of the Advisory committee of a student.

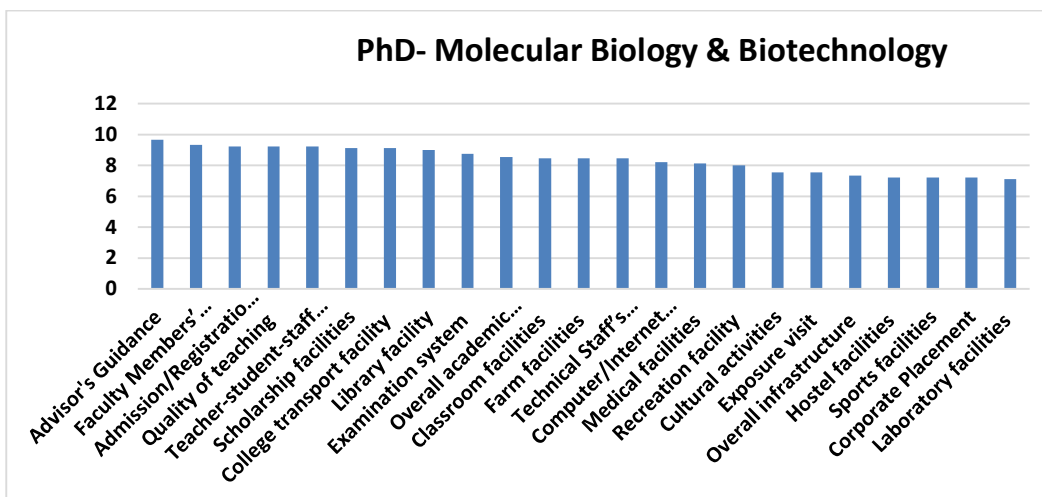
* Documentary evidence attached as annexure I

6.4.7. Feedback of stakeholders:

6.4.7.1. Mention the feedback mechanism

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: Doctoral students of PhD- **Molecular Biology and Biotechnology** Programme are happy with nearly all the facilities provided by the University. Though, facilities like Laboratory, Corporate Placement, Sports Facilities and Cultural Facilities have good 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 scopes 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.

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

Academic Year	Sanctioned strength	Actual intake	Attrition (%)	Students awarded with the degree
2016-17	0	0		0
2017-18	3	3		0
2018-19	3	3		2
2019-20	2	2		1
2020-21	4	4		0

Note: Students can submit their thesis from 6th semester onwards. Hence, working out attrition cannot be possible. Therefore, the number of students awarded with the Ph D in different academic session are included in the table.


6.4.9. ICT Application in Curricula Delivery:

LCD Projectors and computers in both classrooms and practical room. Facilities of computers with necessary software/tools are available for Bioinformatics course. We have conducted online classes and continuously under the pandemic situation utilizing different online platform and social media like google meet, google form, email, Whats up including university website .

I, the Dean, **Prof. Subhendu Bikash Goswami**, 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

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

