



3. Evaluative Report of the Departments

Department of Biotechnology

1. Year of Establishment:

■

2004-2005

2. Names of Programmes/Courses offered (UG, PG, M.Phil., Ph.D., Integrated Masters, Integrated Ph.D., etc.):

■

Under Graduate - Bachelor of Science (Biotechnology)

3. Names of Interdisciplinary courses and the departments/units involved:

■

Nil

4. Annual/semester/choice based credit system (programme wise):

■

UG-Annual

5. Participation of the department in the courses offered by the other departments:

■

UG (B.Sc.Biotechnology) -Zoology, Chemistry, Hindi, English

6. Courses in collaboration with other universities, industries, foreign institutions, etc.:

■

Nil

7. Details of courses/programmes discontinued (if any) with reasons :

■

Nil

8. Number of Teaching posts

■

	Sanctioned	Filled
Professor	-	-
Associate Professor	-	-
Assistant Professor	01	01



9. Faculty profile with name, qualification, designation, specialization, (D.Sc./D.Litt./Ph.D./M.Phil. etc.)

Name	Qualification	Designation	Specialization	No. of Years of Experience	No. of Ph.D. Students guided for the last 4 years
Tarun Kumar Patel	M.Sc., NET	Asst. Professor	Biotechnology	03 (Three year)	Nil

10. List of senior visiting faculty:

Nil

11. Percentage of lectures delivered and practical classes handled (programme wise) by temporary faculty:

0.00%

12. Student-Teacher Ratio (Programme wise):

UG-83/1

13. Number of academic support staff (technical) and administrative staff; sanctioned and filled:

Staff	Sanctioned	Filled
Lab technician	-	01
Lab Attendant	-	-
Administrative Staff	-	-

14. Qualifications of teaching faculty with DSc./D.Litt/Ph.D./ M.Phil/PG:

PG-01

15. Number of faculty with ongoing projects from a) National b) International funding agencies and grants received:

Nil



16. Departmental projects funded by DST-FIST, UGC, DBT, ICSSR, etc. and total grants received:

Nil

17. Research Centre/facility recognized by the University:

Nil

18. Publications:

* Publication per faculty:

02

* Number of papers published in peer reviewed journals (national/international) by faculty and students:

02

- Samantaray*, S., Patel, T.K., Geetha, K.A., & Maiti, S., Identification and assessment of genetic relationships in three Chlorophytum species and two high yielding genotypes of C. borivilianum through RAPD markers. *Biologia* 66/2: 244-250, (2011), (IF 0.8) Citation-02.
- Patel, T.K., Anand, R., Singh, A. P., Shankar, J., & Tiwary, B. N.,. Evaluation of aflatoxin B1 biosynthesis in *A. flavus* isolates from Central India and identification of atoxigenic isolates. *Biotechnology and Bioprocess Engineering*, DOI:10.1007/s12257-014-0464-z (2014), (IF 1.113).

* Number of publications listed in International Databases (For eg. Web of Science, Scopus, Humanities, International Complete, Dare Database-International Social Sciences Directory, EBSCO host, etc.):

03 (ITS region sequence sequences submitted at NCBI Gene bank, USA)

S. No.	Detail of sequence	Accession no.	Year of submission
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1.	Partial ITS region sequence of <i>Aspergillus flavus</i> strain	KC907366	2013
2.	Partial ITS region sequence of <i>A. flavus</i> strain	KC907367	2013
3.	Partial ITS region sequence of <i>A. flavus</i> strain	KF317635	2013

* Monographs:

Nil

* Chapter in Books:

Nil

* Books Edited:

Nil

* Books with ISBN/ISSN numbers with details of publishers:

Nil

* Citation Index:

02

* SNIP

NA

* SJR

NA

* Impact factor:

1.913

* h-index

NA



19. Areas of consultancy and income generated:

Nil

20. Faculty as members in

a. National committees:

Tarun Kumar Patel-Life Member of Association of Microbiologist of India(AMI)

b. International Committees:

Tarun Kumar Patel- Member of Asian Federation of Biotechnology (AFOB)

c. Editorial Board:

Nil

21. Student Projects

a. Percentage of students who have done in-house projects including inter departmental/programme:

NA

b. Percentage of students placed for projects in organizations outside the institution i.e. in Research laboratories/Industries/Other agencies

Nil

22. Award/Recognitions received by faculty and students

* National Entrance Test (NET-Lecturership) conducted Jointly by Council of Scientific & Industrial Research (CSIR) and University Grant Commission (UGC), (Dec. 2008, June 2010, Dec. 2010).

* Received best poster award for poster entitled "Detection of aflatoxin production in Aspergillus flavus strains through triple quadrapole mass spectroscopy. National Conference on Microbial



Diversity: Exploration, Conservation & Application" on Feb., 16th & 17th, 2013, Bilaspur (C.G.), India.

23. List of eminent academicians and scientists/visitors to the department

Nil

24. Seminar/Conferences/Workshops organized & the source of funding

a. National:

Nil

b. International:

Nil

25. Student profile programme/course wise:

Name of the course/programme	Selected	Enrolled	
		*M	*F
2014-15	40	13	27
2013-14	40	16	24
2012-13	36	17	19
2011-12	23	13	10

26. Diversity of Students

Name of the course	% of students from the same state	% of students from other states	% of students from abroad
B.Sc. Biotechnology	100	-	-

27. How many students have cleared national and state competitive examinations such as NET, SLET, GATE, Civil services, etc.?

Nil



28. Student progression:

Not applicable because of only UG course availability.

Student progression	Against % enrolled
UG to PG	-
PG to M.Phil.	-
PG to Ph.D.	-
Ph.D. to Post-Doctoral	-
Employed	-
-Campus selection	-
-Other than campus selection	-
Entrepreneurship/Self-employment	-

29. Details of Infrastructural facilities

a. Library:

Nil

b. Internet facility for Staff & Students:

Nil

c. Class rooms with ICT facility:

Nil

d. Laboratories:

01

30. Number of students receiving financial assistance from college, university, government or other agencies:

All the students of ST/SC/OBC category receive financial assistance from government of Chhattisgarh.

31. Details on student enrichment programmes (special lectures/ workshops/ seminar) with external experts:



Nil

32. Teaching methods adopted to improve student learning:

- a. **Educational Tour:** Educational tours are organized for the students of UG level to improve the understanding of working in research laboratory.
- b. **Assignment:** Short assignment from their syllabus are given to students to improve the quality of writing, presentation of answers and collection of good quality notes by themselves.
- c. **Group discussion:** In each academic session students were given a short topic from their syllabus. After giving them sufficient time each student have to present the topic in the class as per there convenience using power point/ transparency sheets/ green board/ only oral presentation. This practice is used to develop/improve the confidence level, verbal and defensive capacity among students which support the student during viva-voice of practical examination and other interactive activities.
- d. **Power point presentation:** Some topics of syllabus is taught through the power point presentation to make the lectures interesting and simplify the complicated biological phenomenon for the better understanding.
- e. Written and web based notes were provided to the students.
- f. Some books from the foreign authors and reference books which are not available in the college library are being made available for reading in the college.

33. Participation in Institutional Social Responsibility (ISR) and Extension activities:

Students are motivated to join

NCC/NSS/Red cross and other institutional activities or programmes organized by the college and university.

34. SWOC analysis of the department and future plans:

Strength:

- * Well connected by road transport system (situated near NH30), state capital is 60Km and district head quarter is only 25Km
- * High student strength



- * Modern and interdisciplinary subject with wide range of applications in various fields

Weakness:

- * Insufficient classroom and laboratory space
- * Inadequate laboratory facilities
- * Lack of computer and internet facility
- * Insufficient man power, high teacher student ratio
- * No Post Graduate programme or any other advanced training based course available

Opportunities:

- * Job opportunities in pharmaceutical, clinical and tissue culture laboratories
- * Opportunities available for students in administrative and academic and R & D sectors.
- * Students could be develop into enterprenure

Challenges:

- * To teach students of rural area
- * To provide quality education in limited resources
- * Placement of students

Future Plans:

- * Development of well equipped laboratory
- * Setting up departmental library
- * Computer and Internet facility for student and faculty
- * Improvement of student teacher ratio and other supporting staff