

Criterion II

Teaching-Learning and Evaluation

2.1 Student Enrolment and Profile

2.1.1 How does the college ensure publicity and transparency in the admission process?

Prospectus, Institutional Website, Shiksha.com, Advertisement in Regional/ National Newspapers, Notices, Banners

The institution ensures wide publicity to the admission process which is publicized through the prospectus. The prospectus provides information about the college, various courses offered, co-curricular, extracurricular activities conducted by the college. It also provides information on evaluation rules, attendance requirements and deadlines for various government scholarships and freeships.

Along with the prospectus, the students are given detailed information on the procedure of admission viz. sale of forms, dates of merit lists, deadlines for payment of fees (both for open and reserved category students). It is also prominently displayed on notice boards. There is help desk to provide information to students and parents. This is to facilitate the stakeholders in the admission process. The information is also available on the institutional website www.rjcollege.edu.in. The prominent location of the college and its reputation does not require any advertisement. However, whenever a new course is initiated an advertisement is placed in newspapers for greater publicity. The alumni of our college are ambassadors of our college to promote good will. They bring their wards to the college which is an indicator of the institutional loyalty they have.

2.1.2 Explain in detail the criteria adopted and process of admission (Ex. (i) merit (ii) common admission test conducted by state agencies and national agencies (iii) combination of merit and entrance test or merit, entrance test and interview (iv) any other) to various programs of the Institution.

UG Admission:

The students for the UG program are admitted as per the detailed guidelines provided by University. All in-house students (those who have passed their XIIth Std examination from our college) have to be admitted. Since our college has linguistic minority status, 50% seats are allotted to Hindi speaking students. Of the remaining seats, reservation policy prescribes 13% for SC, 7% for ST, 19% for OBC and 11% for VJNT. In addition, there is a quota for ex-service men (not exceeding 5%), handicapped and employees on transfer. Sportsmen have 3% quota.

The same guidelines are followed for self-financing professional courses except that In-house students are also selected on merit.

PG Admission:

Admission to PG courses, other than self-financing courses is granted on merit by the University for all colleges to the extent of 70% of the sanctioned seats. This is open to all the affiliated colleges of the University of Mumbai. 30% seats which are reserved for the college are used to admit students of the college on merit.

Admission for self-financing courses is given on merit-cum-minority and reservation basis. The aggregate marks scored at the qualifying examination in the subject concerned decide the eligibility for admission.

2.1.3 Give the minimum and maximum percentage of marks for admission at entry level for each of the programmes offered by the college and provide a comparison with other colleges of the affiliating university within the city/district.

Category & Class	Open	Reserved	Minority
B.A.	All in house students are admitted		
B.Com.	65-80%	60-75%	60-75%
B.Sc.	50-80%	45-75%	45-75%

Category & Class	Open	Reserved	Minority
BBI	60-70%	60-62%	60-62%
BMS	62-72%	60-70%	60-70%
B.Sc. (Biotechnology)	60-80%	55-60%	55-60%
B.Sc. (CS)	60-80%	55-60%	55-60%
B.Sc. (IT)	70-80%	65-70%	65-70%

2.1.4 Is there a mechanism in the institution to review the admission process and student profiles annually? If 'yes' what is the outcome of such an effort and how has it contributed to the improvement of the process?

The guidelines of the admission process are laid down by the University of Mumbai which provides information on the schedule of the admissions along with the display of merit list and payment of fees. As per these the college admission committee prepares itself for the admission. From this year the University of Mumbai introduced the mechanism of online application due to which the enrolment procedure has become easier. Our college compiles and analyses the student profiles which is obtained from the admission forms and the self-analysis forms filled by the students.

This helps us in identifying students who need help in terms of academics and or economically.

2.1.5 Reflecting on the strategies adopted to increase/improve access for following categories of students, enumerate on how the admission policy of the institution and its student profiles demonstrate/reflect the National commitment to diversity and inclusion.

Our Mission statement states that Education for all. This is reflected in our admission policy. There is 25% reservation for students from backward class and they are encouraged to enroll for all our courses. There are dedicated staff who help them with fulfilling all the procedures essential for Government free ships and scholarships. Our morning class for commerce and Arts students specially caters to providing education for the students from the marginalized section of the society. Our premises are disabled friendly. Our humane members of teaching and supporting staff ensure that these students are comfortable. Lifts, railings, wheel chair are provided for easy access. The economically disadvantage students are provided with fee concession, tuition waiver, financial help under "Earn while you Learn" scheme and mentoring. Sport personnel are provided with excellent coaches, fee waiver and all the allowances when they are travelling. Special prizes are awarded to students who excel in sport on the Gymkhana prize distribution function organized every year. Thus our institution fully translates the national commitment to diversity and inclusion into reality.

Admission Policy of the Institution

Category of students	Strategies adopted for admission
SC/ST & OBC	Govt. rules for admission and in-house facilities
Differently abled	Special facilities for physically handicapped and friendly attitude
Economically weaker sections	Govt. and in-house free ships and facilities
Minority community	Rules as per minority institution

2.1.6 Provide the following details for various programmes offered by the institution during the last four years and comment on the trends. i.e. reasons for increase/ decrease and actions initiated for improvement.

Sr. No.	Programmes	Number of applications	Number of students admitted	Demand Ratio
<i>Undergraduate</i>				
1.	F.Y. B.A.	409	257	1: 1.5
2.	F.Y. B.Com.	2279	480	1:4.7
3.	F.Y. B.Sc.	2042	480	1:4
4.	F.Y. BBI	266	60	1:1.4
5.	F.Y. BMS	637	120	1:5

6.	F.Y. Biotechnology	562	65	1:8
7.	F.Y. Computer Science	567	48	1:11
8.	F.Y. I.T.	1685	60	1:28

Postgraduate

1.	M.A. English	150	50	1:2
2.	M.A. Hindi	150	60	1:2
3.	M.Com.	200	60	1:3
4.	M.Sc. (Botany, Zoology and Chemistry)	Admission through University of Mumbai		
5.	M.Sc. Biotechnology	460	20	1:23
6.	M.Sc. Computer Science	100	40	1:2

Ph.D.

1.	Arts	04
2.	Science	06

PG Diploma

1.	Clinical studies, Data Management and Medical Writing	100	40
2.	Horticulture and Landscape Gardening	50	10

Programme	Demand ratios for years 2010 - 2014			
	2010-2011	2011-2012	2012-2013	2013-2014
<i>Undergraduate</i>				
F.Y. B.A.	1:2	1:2	1:2	1:1
F.Y. B.Com.	1:4	1:4	1:4	1:5
F.Y. B.Sc.	1:4	1:4	1:4	1:4
F.Y. BBI	1:5	1:5	1:5	1:5
F.Y. BMS	1:6	1:6	1:5	1:5
F.Y. Biotechnology	1:10	1:10	1:8	1:8
F.Y. Computer Science	1:2	1:2	1:15	1:11
F.Y. IT	1:30	1:33	1:32	1:28
<i>Postgraduate</i>				
M.A. English	1:1	1:1	1:1	1:2
M.A. Hindi	1:1	1:1	1:1	1:2
M.Com.	1:1	1:1	1:3	1:3
M.Sc. Biotechnology	1:25	1:25	1:25	1:23
M.Sc. Computer Science	1:2	1:2	1:2	1:2

We have analyzed the demand ratio and we found that they have been more or less stable for the last four years. It has been observed that there is a drop in the demand for Arts faculty in undergraduate program due to a large number of options being available to students to pursue courses other than BA. The student number in arts also depends on the feeder Junior Colleges where the number of students joining arts are declining substantially. However there is an increase in demand for PG programmes in Arts from students aspiring to be teachers.

2.2 Catering to Diverse Needs of Students

2.2.1 How does the institution cater to the needs of differently-abled students and ensure adherence to government policies in this regard?

Our college is very sensitive to the needs of the differently abled students. Due to its proximity to the railway station orthopedically challenged students join the institution.

- Availability of lift near the stair case
- Ramps and Railings for easy access
- Availability of wheel chair
- Highly supportive teaching, non-teaching staff and humane students who are ready to help whenever needed
- Parents and friends are given permission to accompany the differently abled
- Separate wash rooms for differently abled students
- Software for visually impaired staff and student is available

Some of the ways in which government policies are implemented are:

- Separate exam seating arrangement for easy access to disabled students
- Providing readers and writers for visually challenged students
- Providing extra time during exams as per University of Mumbai guidelines
- Facilitating all the government scholarships and free ships schemes
- Our institution takes care of students who appear for exams from other colleges by providing them all amenities and making them comfortable

2.2.2 Does the institution assess the students' needs in terms of knowledge and skills before the commencement of the programme? If 'yes', give details on the process.

Since there is no provision for assessing the students' knowledge and skills before the commencement of the programme the institution adopts the following policies to enable the students cope with the programme to which they are enrolled:

- For the entry level at degree college (F.Y. B.A./ B.Com./ B.Sc.) class the class tests, tutorials, practical provides the required information on the level of knowledge of the student.
- In the first week the teachers are involved in teaching or revising the basics of the subjects that they have chosen and orient them towards the program that they have chosen. The orientation programme

involves introduction of students to various facilities in the college including the co-curricular and extracurricular activities. They are motivated to join at least one of them. Some departments have started giving incentives to the students by giving them excellence awards based on their academic performance and participation in various intra and intercollegiate activities and bringing laurels to the institution.

- Since majority of the students are from vernacular medium they require orientation to the medium of instruction.
- At the end of the second year, science students have to choose a major subject. Most of the departments conduct workshops to educate prospective students to the various career options and then give them extensive training in the basics of the subject to ignite interest in the subject for better performance. Over the years these workshops have become very popular with the students.
- The teachers are available for student interaction, popularly called the contact hours.

2.2.3 What are the strategies drawn and deployed by the institution to bridge the knowledge gap of the enrolled students to enable them to cope with the programme of their choice? (Bridge/ Remedial/ Add-on/ Enrichment Courses etc.

- There is a bridge course in Maths for students of B.Sc. Biotechnology programme.
- The Computer Science PG programme is offered to students from Mathematics, Statistics and Physics. Since they do not have enough knowledge on programming, a bridge course is conducted by the Computer Science department to teach these students the required concepts and also give them practical training required for the M.Sc. Computer Science programme.
- Since majority of the students are from vernacular medium teachers are involved in enhancing their language skills through the use of language laboratory or by involving them in workshops aimed at skill enhancement.
- To understand the fundamental of the subject that the students intend to graduate summer courses are conducted by the departments of Chemistry, Physics, Botany and Zoology.
- All the departments participate in the orientation programme organized by the college when the term commences. In the first week all teachers take part in teaching the basic of the subject so as build a strong foundation for higher learning. This also helps in building a rapport among the students and

teachers.

- Student enrichment programmes are mainly in the form of workshops which are related to their curriculum and some of them are of general nature. Some of the workshops which have been organized are in instrumentation, bioinformatics, medical writing, safety in laboratories, poetry writing and appreciation, IT security, good clinical practices, regulatory affairs, health and hygiene to name few of them.

2.2.4 How does the college sensitize its staff and students on issues such as gender, inclusion, environment etc.?

There are forums through which the college sensitizes the staff and students. Such as gender friendly premises, inclusive practices and concern and care for the environment. The women development cell conducts gender related workshops and programme. Some of these are in association with WDC of the University of Mumbai and NGO's like MAWA, Akshara, Chetna Foundation, Sneha. Our efforts to make the premises gender friendly has been recognized by the State Government and our college was awarded the first prize under the aegis of " Jaagar Jaanivancha". The NSS students also conduct street plays, slogan and poster competitions to sensitize staff, students and public regarding these social issues. The NCC students also spread messages of 'Save the Girl Child', 'Women Empowerment' across the country during their cycle expeditions to various borders of the country. The college is aware about its responsibility towards protecting our planet. The co-curricular activities have programs like Geo Week which has activities to educate people on reduce, recycle and reuse, green campus, ecofriendly materials. The PAVO nature club organizes nature trails and walks for the students and staff to help them appreciate nature and in turn take care of her. The NSS, NCC and the extension activity of the college contributes to maintaining a green and clean campus.

2.2.5 How does the institution identify and respond to special educational/learning needs of advanced learners?

The close interaction between students and teachers makes the process of identifying the slow and advanced learners easy.

- Advanced learners are encouraged to teach their fellow students in turn they become confident and also help them to learn more of the subject by referring to the reference books.
- In project work involving a team, the members

are constituted of slow, average and advanced learners. This has proved to be very effective since the advanced learners being self-motivated also motivate other members of the team resulting in better performance of the team.

- Many departments have a tutor ward system which has a teacher mentoring a group of students. This teacher helps the slow learners by giving extra coaching and the advanced learners are provided additional reading material in the form of reference books, journals etc. They are given challenging questions to be solved.
- The college enhances intellectual capability of advanced learners by involving them in research projects, presentations in seminars, quiz etc.
- Library issues scholar cards to meritorious students which enable them to borrow more books than otherwise available to all students.
- Advanced learners are also encouraged by their teachers to appear for competitive exams and they are provided with reference material.
- The success of the above methods is observed by the transformation observed in the advanced learners in terms of goal setting, awareness of capabilities which has led to achieving higher grades, improved performance in paper/ seminar presentations.

2.2.6 How does the institute collect, analyze and use the data and information on the academic performance (through the programme duration) of the students at risk of drop out (students from the disadvantaged sections of society, physically challenged, slow learners, economically weaker sections etc.)?

The socio economic background of the student community in our college makes them very fragile and these have to be handled carefully so as to prevent them from dropping out. The data collected from the student profile and the close interaction between the student and teachers allows us to identify these students. The results are analyzed and those students who do not qualify in the internal examination are personally counseled to find out why they have not been doing well academically. Students who remain absent are questioned for their absence and if the reasons are genuine like prolonged illness, deaths in the family teachers take extra classes to teach them the lessons that they have missed. Special practical sessions are arranged for these students to enable them to do the practicals that they have missed. During the parent-teacher meeting teachers interact with the parents to find out the reasons for their child not doing well in studies or continued absenteeism. This has helped build a rapport among the parents, students and teachers and in turn it has helped in decreasing the rate of drop

outs. The qualified counselor also helps the student when they approach her for personal counseling.

2.3 Teaching-Learning Process

2.3.1 How does the college plan and organize the teaching, learning and evaluation schedules? (Academic calendar, teaching plan, evaluation blue print, etc.)

Organizing the teaching learning activity requires meticulous planning. An outline of the plan is prepared by the committee, which consists of the Principal and Vice Principals and the Head's of the Departments and IQAC members.

- When the college reopens the Principal addresses the members of the teaching staff to brief them about the terms and activities to be conducted. Class wise orientation programs are conducted so that the students are prepared and they also plan their year.
- Academic calendar is prepared for the year and is also available on the website.
- There are meetings of the Principal and Heads of the department before the session starts and in the end of the session.
- Heads of the departments conduct meetings with their colleagues to discuss the time table and topics are allotted before the term ends so that teachers have adequate time to plan their teaching and prepare material to be given to the students. In case of science subjects practical manuals are prepared by the teachers to facilitate the learning process and this enables them to devote more time for acquiring skills. The syllabus is unitized and the curriculum is distributed vis. a vis. number of lectures.
- A highly efficient mechanism for evaluation exists in the college. The rules regarding tests and examinations are explained in the prospectus and on the website. In addition in the beginning of the academic year the syllabus and evaluation procedures are explained to the students in lecture rooms and displayed on the notice boards in the general area, and boys and girls common rooms and website. The examination committee meets to chalk out the time table for conducting theory and practical examinations. Evaluation is done by a centralized assessment process and the results are also analyzed by the examination committee before they are declared.
- Papers are moderated as per rules.
- Teachers meticulously plan their lecture schedule and often engage extra lectures for problem solving and discussion on difficult topics. The students respond positively to these extra lectures.

- The prospectus provides information on the evaluation process which is available on the institutional website as well.
- The model answers are loaded on the website so that students know why they have lost marks.

2.3.2 How does IQAC contribute to improve the teaching-learning process?

IQAC members coordinate with the teachers and contribute to the teaching learning process. Some of them are listed below:

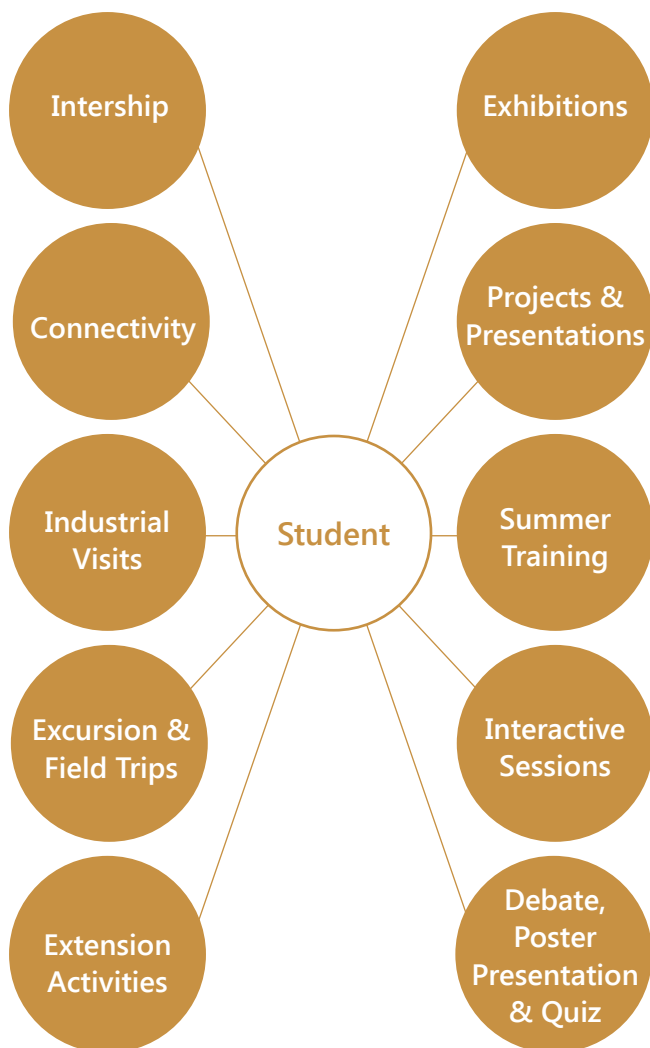
- ICT orientation for improving quality of teaching.
- Librarian is also a member of the IQAC who contributes by addition of learning resources like e-journals, e-books. She periodically sends the list of new arrivals and updates on interesting reading material that she comes across. A dedicated notice board displays new arrivals.
- Promotion of research as a part of the teaching process.
- Enhancing the infrastructure as per the changing requirements.
- Encouraging departments to organize workshops, seminars for teachers and students.
- Support in all the co-curricular and extra-curricular and extension activities conducted by the various departments.

2.3.3 How is learning made more student-centric? Give details on the support structures and systems available for teachers to develop skills like interactive learning, collaborative learning and independent learning among the students?

- Learner centric teaching methods such as group work, role play, project work, field visit, industrial visits, case study, debates, seminars, presentations are employed to make teaching and learning more effective.
- Educational trips, surveys are organized at departmental levels.
- All departments organize guest lectures by eminent personalities to develop the students to learn on their own.
- Visiting faculties drawn from industry and academic institutes of repute supplement the teaching process and provide the information to bridge the gap between industry and academia.
- Some departments have e-groups and phone groups for assignments and projects.
- Students are encouraged to take summer training or on the job training.
- Our college is unique in having a club/ association with every department which organizes number of

student centric activities. The participating students are from the same department or from other departments which promotes interdepartmental collaborative activities. These activities are an integral part of the departmental activity. Organization of these events promotes leadership qualities in the students. It also inculcates the spirit of team work among the students.

- In addition to the collection of audio visual aids in the central library, departmental libraries also have their own collection, to promote easy access.
- Seminars are both teacher and student led.
- Practicals in science departments involve individual as well as group work, under the guidance of the teacher. The student teacher ratio is more or less about 1:15/20. The teacher for that batch also serves as a mentor in the first and second years.
- Poster presentation, power point presentations, cartoons on relevant topics make the teaching process interesting and student centered.
- Free internet access in the library and departments promotes the habit of self-learning among the students.



2.3.4 How does the institution nurture critical thinking, creativity and scientific temper among the students to transform them into life-long learners and innovators?

- Formal lectures by teachers are also made interactive by allowing the students to ask questions followed by discussion and clarifying doubts raised by the learners.
- Teachers also frequently ask questions to find out whether the learner has understood or not.
- Teachers use the ICT enabled teaching method by preparing computer assisted teaching aids. These are also animated and simulated to hold the attention of the learner. Audio visual aids have a long lasting impression on the learner.
- All rooms are equipped with speakers and teachers are provided with portable microphones which can be used in any class room. Most of the class rooms have white boards or the facility for drop down screens. Some rooms have an mounted LCD projectors. Laptops and LCD projectors are easily made available to the teachers for lectures.
- Audio visual aids such as overhead projectors (OHP), slide projectors, models, charts, maps (available also on CD), and films are also made available.
- A centralized media facility is available in the college to support the teaching learning process. Some departments have this facility. Teachers are trained in computers. They are also trained in Photoshop, Corel Draw, Adobe premiere, Microsoft Expression Web, flash and dream weaver. The college assists/ encourages teachers to develop content using computers to make their presentations more meaningful.
- The college conducts virtual training for teachers in the technique of making presentations.
- Teachers also prepare course content related to their topics to impart values to the students. This has been found to be very effective.
- Concern for environment is taught by Tree Appreciation or by talk of the day.
- Some departments have developed innovative methods of teaching a topic like translation of a popular song in the language they teach. Also, in some subjects laws are set to popular song tunes, and presented. Interdepartmental lectures are also conducted.
- Departments have their study circles and wall paper to enable the students to collect material on the given topic and discuss them or display them.
- Departments encourage projects at the undergraduate level and in some departments this is evaluative. Students learn to work in a team, collect, analyze data and make presentations by using ICT.
- Project work which is evaluative is compulsory at

the PG level which also incorporates a research component. The students can carry out project work in-house or in an industry or research institute. This empowers the students to learn in an alien environment, adapt to the new work place, define objective, and standardize protocols to achieve the objectives, collect data, observe, tabulate, analyze and make conclusions. They also learn to search, compile relevant literature from reference books, manuals, journals and the internet. This also gives them an opportunity for self-analysis and to explore the avenues in their desired career. It gives them an insight into the exciting field of research and to take up research as a career.

- Excursions and industrial visits for experimental learning.
- Projects, pilot studies and surveys help students to develop composite skills like data collection, organization, presentation of data, and usage of IT for preparation of thesis and power point presentations.
- Student seminars and group presentations on current topics are organized.

2.3.5 What are the technologies and facilities available and used by the faculty for effective teaching? E.g.: Virtual laboratories, e-learning - resources from National Programme on Technology Enhanced Learning (NPTEL) and National Mission on Education through Information and Communication Technology (NME-ICT), open educational resources, mobile education, etc.

- The seminar room is air conditioned and equipped with audio visual aids like OHP, LCD, Computer, television, CD player, mike system, speakers
- Some of the Science departments have been provided with visualizers
- All departments are provided with computers with connectivity to enable students to prepare their projects, presentation, and data analysis
- Free internet service is available in the library
- The departmental libraries supplement the learning resources needed for effective learning by the learners
- The website has links for many open educational resources like MIT, Khan's academy
- E-learning resources through NPTEL and NME-ICT are available
- Mobiles are mainly used for announcing academic discussions and events
- Social media like Facebook, WhatsApp is also used whenever an interesting article or event has to be shared

2.3.6 How are the students and faculty exposed to advanced level of knowledge and skills (blended learning, expert lectures, seminars, workshops etc.)?

The numerous ways in which students and faculty are acquainted to advanced level of knowledge and skills are as follows:

- Student Internships provides an opportunity for students to learn by doing and also helps them to bridge the gap between campus to corporate
- Training programs for teacher either provided in-house or faculty is deputed to other Institutions to acquire skills needed for emerging areas
- Student Seminars encourages participatory learning
- Need based workshops and seminars are organized by individual departments
- Experts are invited to deliver guest lectures. This provides an opportunity for students and faculty to interact with them
- Blended learning helps in usage of modern technology wherever needed and retaining conventional methods where desired

2.3.7 Detail (process and the number of students/benefitted) on the academic, personal and psycho-social support and guidance services (professional counseling/mentoring/academic advise) provided to students?

Our institution believes in holistic development of a student. To achieve this in addition to the academic growth we also ensure that we groom them to be individual with ethics, self-respect and also have concern for the society. The wide range of extension activities train students to develop leadership skills, team building, share social responsibilities. The

Support and Guidance Services	Number of beneficiaries (students)	Process	Unit
Professional Counseling	All students	Career guidance, seminars, career fair	Career and Placement Cell
Psycho-social Development	1000 students/ year	Training in self-awareness, personal counseling, confidence building	SAP, Counseling Cell
Academic Growth	75% of the students	Mentoring by teacher mentors	Small group activity, one to one interaction, departments
Skill Enhancement	1000 students/ year	Add on courses, skill enhancement programmes	Conducted by departments

extremely supportive members of the teaching and supporting staff ensure that students are provided with guidance and support system to enhance their personal, professional and academic growth.

2.3.8 Provide details of innovative teaching approaches/methods adopted by the faculty during the last four years? What are the efforts made by the institution to encourage the faculty to adopt new and innovative approaches and the impact of such innovative practices on student learning?

There has been a surge in utilizing technology in teaching which has been found to be effective. Some of the innovative teaching approaches which have been adopted and found to be effective:

- Research oriented teaching by guiding students to do projects, seminars on relevant topics
- Experimental models to explain the concept.
- Use of visualizers in practical sessions when details of microscopic observations have to be explained
- Learning in field during field trips
- Peer teaching
- Group discussions, role play, posters, enrichment programs through co-curricular activities.
- Revision of the topic using powerpoint, animations
- Use of drama (theatre techniques) to explain stories
- To encourage self-study students are given assignments. This encourages independent thinking and analysis

2.3.9 How are library resources used to augment the teaching-learning process?

The central library is a resource hub to fulfill the needs of the learners. It welcomes suggestions from its users for acquisition of materials to fulfill the needs of the teaching and research programs of the college.

- All departments have departmental libraries which are very popular among the students.
- These are managed by students (Earn while you learn scheme) or by teachers.
- Students have access to books and flexibility in lending and borrowing of books. They also have the facility of browsing through the books and take it for home issue.
- The students interact with their peers and teachers and discuss about the topics in the reference books or articles.
- The central library displays new arrivals and also enlists them. Important news from newspapers is also displayed as clippings.
- The librarian sends updates to staff member on new arrivals.
- The college has membership of the British Council

Library and American Library which are used by the staff members.

2.3.10 Does the institution face any challenges in completing the curriculum within the planned time frame and calendar? If 'yes', elaborate on the challenges encountered and the institutional approaches to overcome these.

This year the credit system has been implemented for all the classes. Since it is a transformation period teachers found it difficult to complete the curriculum in the planned time frame. Coupled with this teachers conducted internal test, project work and assignments. However, the curriculum was completed by taking extra lectures on holidays. The college ensures that the academic time is neither lost nor compromised.

2.3.11 How does the institute monitor and evaluate the quality of teaching learning?

Teachers who are newly recruited attend an orientation workshop conducted by the Head of the Institution. This provides them information about the structure and functioning of our Institution. It also gives them information about the expectation of the Institution from the teachers especially with reference to the quality of teaching.

- A structured feedback is obtained from the students which is analyzed and discussed by the Head of the department with the individual teacher. The new recruits are also monitored by senior teachers by evaluating the lecture/ practical session and a discussion on points of appreciation and points which need to be improved upon are held on a one to one basis. This has helped the teachers to grow and emerge as an excellent teacher.
- In addition to the feedback college also conducts a student satisfaction survey to get more inputs on the teaching learning process.
- Supervisory rounds are taken by the Principal and Vice Principals.
- Analysis and discussion by the Principal and HODs of the departments at the end semester examinations.

2.4 Teacher Quality

2.4.1 Provide the following details and elaborate on the strategies adopted by the college in planning and management (recruitment and retention) of its human resource (qualified and competent teachers) to meet the changing requirements of the curriculum.

The selection of faculty is as per the guidelines of the UGC, State Government, and University of

Mumbai. Recruitment procedure involves getting a no objection letter from the Joint Director, Mumbai region, getting the draft advertisement approved by the University of Mumbai, Advertising in three leading newspapers (English, Hindi and Marathi), calling the eligible candidates for interview, selection committee as per UGC norms consisting of nominees of the Vice chancellor, Government, Governing body, subject expert, HOD and Principal. Appointed teachers are approved by the University of Mumbai. Merit is the sole criteria for selection and as a result we have an excellent faculty, which is the strength of our institution. The work culture and academic ambience provided by the institution has helped us in retaining talent.

Highest Qualification	Professor		Associate Professor		Assistant Professor		Total
	M	F	M	F	M	F	
<i>Permanent teaching staff</i>							
D.Sc./D.Litt.	-	-	-	-	-	-	-
Ph.D.	-	-	07	10	8	15	40
M.Phil.	-	-	02	06	0	0	08
PG	-	-	08	07	17	14	46
<i>Temporary teaching staff</i>							
Ph.D.	-	-	-	-	-	03	03
M.Phil.	-	-	-	-	-	01	01
PG	-	-	-	-	-	28	28
<i>Part-time teaching staff</i>							
Ph.D.	-	-	-	-	-	-	-
M.Phil.	-	-	-	-	-	-	-
PG	-	-	-	-	-	-	-
Total	-	-	17	23	25	61	126

(M = Male; F = Female)

2.4.2 How does the institution cope with the growing demand/ scarcity of qualified senior faculty to teach new programmes/ modern areas (emerging areas) of study being introduced (Biotechnology, IT, Bioinformatics etc.)? Provide details on the efforts made by the institution in this direction and the outcome during the last three years.

Mumbai is an educational and financial hub. Our College is very conveniently located near BARC, Homi Bhabha Centre for Science Education, IIT-Bombay, NITIE, NIRRH, KEM Hematology Center, Haffkine Institute, a little further Bombay Stock Exchange, Asiatic Library, British Museum, TIFR so getting faculty who are experts in emerging areas is not difficult. They are invited as guest faculty. In addition our faculty is trained by them. Networking with research Institutes and corporates help us in the teaching learning process in new programmes.

2.4.3 Providing details on staff development programs during the last four years elaborate on the strategies adopted by the institution in enhancing the teacher quality.

- The college management is extremely proactive and encourages teachers in their professional development in various ways.
- Teachers are given duty leave for attending seminars, conferences and workshops.
- Our institution conducts every year a workshop on how to write research proposal
- A faculty development program of one week duration was conducted in research methodology
- The institution encourages teachers to participate in training programmes, Orientation Courses and Refresher Courses, by providing them timely information on the schedules of these programs.
- Teachers are also involved in training of students for the Olympiad examinations. The college premises are made available for training in the practical.
- Teachers are encouraged to update their knowledge and are sent for workshops on instrumentation, new programming like Data warehousing, content development, care of cancer patients, Molecular Biology techniques to name the prominent ones.

A. Nomination to staff development programmes

Academic Staff Development Programmes	Number of Faculty Nominated
Refresher courses	25
HRD programmes	05
Orientation programmes	24
Staff training conducted by the University	20
Staff training conducted by other institutions, summer/ winter schools, workshops etc.	10

B. Faculty Training programs organized by the institution to empower and enable the use of various tools and technology for improved teaching-learning

To increase faculty interaction promote skill development, enhance awareness of key issues and provide platform for research interactions our institution organizes half day seminars and workshops. To handle new curriculum workshops are held at departmental level with Board of Studies in the respective subject. Our college provides audio visual aids and other teaching aids as per faculty requirement. Teachers are encouraged to develop content and share with their colleagues.

C. Percentage of faculty

Sr. No.	Particulars	Percentage of Faculty
1.	Invited as resource persons	40%
2.	Faculty participations in workshops/ seminars/ conferences	100%
3.	Presentation of papers	60%

2.4.4 What policies/ systems are in place to recharge teachers? (e.g.: providing research grants, study leave, support for research and academic publications teaching experience in other national institutions and specialized programmes industrial engagement etc.)

A one day orientation programme is conducted for all new recruits wherein they are informed about the institutional policies. They are informed about their career prospects and how the institution will help them to grow. The teachers are encouraged to complete their orientation and refresher courses at the earliest. Research is promoted by encouraging them to write research proposal to various funding agencies. The college organizes regular training programmes for the faculty in computer usage, material development and making computer aided presentations. The interaction among the faculty members enables them to share their expertise with each other and new ideas are shared. They also learn to make effective presentations from other experiences.

- Notices regarding conferences/ seminar/ workshops are displayed on the notice board and additionally they are also provided to the departments.
- Registration fees are promptly reimbursed/ paid to the teachers.
- In case of paper presentation, travel fare is sanctioned.
- Teachers get study leave for completion of their Ph.D. work. Papers for sanctioning FDP for teachers are processed promptly.
- Time tables are adjusted to facilitate the teachers engaged in Ph.D. work.
- Leave is granted for going abroad in case of collaborative work.
- Our college also arranges workshops, seminars at State and National level.
- Faculty is encouraged to acquire advanced instrumentation and laboratory skills by attending training programs in-house or in other institutions.
- Faculty is encouraged to participate in International conferences and colloquiums and bring new information to the institution.

2.4.5 Give the number of faculty who received awards/ recognition at the state, national and international level for excellence in teaching during the last four years. Enunciate how the institutional culture and environment contributed to such performance/ achievement of the faculty.

Name of the Teacher	Year	Recognition/Award
Mr. V.B. Kulkarni Mr. Bhushan Arekar Dr. Anagha Kamble	2012	Faculty Exchange program Fleming college, Canada
Mr. Pravin Nayak	2013	Selected as team leader for the International Biology Olympiad, Bonn Switzerland

Name of the Teacher	Year	Recognition/Award
Dr. Amita Valmiki	2010, 2011 and 2013	<ul style="list-style-type: none"> • Germany for collaborative research work • Visited China for presenting invited paper • Visited Greece for presenting invited paper
Ms. Rekha Ghorpade	2012-2013	Resource person for Physics Olympiad
Dr. P. G. Kale	2010	<ul style="list-style-type: none"> • Selected to as a team leader at the International Biology Olympiad held at Japan • Resource person for training and selecting team for International Biology Olympiad at Beijing • Appointed as Hon. Director of "Vishnugupta" • Resource person at workshops and member of academic audit, Local Inquiry Committees of University of Mumbai • Dr. G.D. Pol Best teacher award Life time achievement 2012
Dr. Anagha Kamble Dr. Meher Mistry Dr. Vaishnavi Sridhar Dr. Sandesh Diwekar Dr. Bindu Achary Dr. Anil Avhad Dr. Smruti Thombare Dr. Tania Mosses Dr. Nita Srivastava	2009-2013	Awarded Ph.D. degree
Dr. R.S. Dubey,	2010	Best paper award
Mr. Yatin Rane and Ms. Seema Gadre	2009-2013	Members, Selection Committee, University of Mumbai for water polo, swimming, and cricket; and also accompanied the University teams
Dr. Sandesh Divekar	2012	Dr. G.D. Pol Best Innovative Teaching Award
Dr. Kiran Kolwankar	2009-2013	<ul style="list-style-type: none"> • Visiting scientist at Max Plank Institute, Germany • Reviewer for scientific papers
Dr. Usha Mukundan	2009-2013	<ul style="list-style-type: none"> • Awarded AOTS scholarship for TQM training in OSAKA, Japan 2010 • Best teacher award at the State Level awarded by Government of Maharashtra 2010-11 • Dr. G.D. Pol Best Principal Award 2012 • Principal P.S. Ramaswamy Best teacher award instituted by South Indian Education Society 2013. • NAAC peer team member and member coordinator • Resource person at NAAC related seminars and workshops • Chairperson at seminar sessions and panel member at seminar • Editorial Board of scientific journals • Member of Advisory committee for Add On courses University of Mumbai • Reviewer of Scientific papers • Appointed as Chairperson of Chess, Taekwondo, Basketball

2.4.6 Has the institution introduced evaluation of teachers by the students and external Peers? If yes, how is the evaluation used for improving the quality of the teaching-learning process?

- There is a formal mechanism of obtaining feedback from the students.
- The feedback is obtained from almost all the students by the authorities and student representatives from the class also help in the process of collection.
- In addition the departmental heads also have evolved their own methods of obtaining feedback from student's term wise/semester wise.
- Some teachers also take feedback after each topic they have taught to improvise on their teaching techniques.
- The feedback is analyzed and the graphical representations are made available to teachers.
- Teachers look forward to the inputs and lacuna, if any, are corrected.
- The teachers are also assessed by the Head of the department and the Principal.

2.5 Evaluation Process and Reforms

2.5.1 How does the institution ensure that the stakeholders of the institution especially students and faculty are aware of the evaluation processes?

- The evaluation methods are communicated to the students and other institutional members by way of prospectus, website, notices and departmental meetings. During orientation the students are given a clear idea about the syllabus and evaluation procedure. The ATKT rules are also explained emphasizing on the minimum marks to be scored in each paper.
- The entire evaluation process can be sub divided into i) class room evaluation, internal tests and assignments ii) Evaluation prescribed by the University of Mumbai, for the first and second year degree courses, and iii) final year examination conducted by the University of Mumbai. Each of these has a specific purpose and mode of conduct.
- The examination In-charge has committees working with him viz. the examination committee and unfair means enquiry committee.
- At the beginning of the academic year the examination committee plans the schedule of examinations for the entire year.
- Each examiner submits two sets of question papers of which one is randomly selected. Typing and photocopying are done in-house in a confidential manner. The examination committee prepares the time table and allots supervision turns to the

teachers.

- They get the premises ready for the conduct of examinations, award grace marks as per rules and are also in charge of declaration of results in accordance with the rules of the University of Mumbai.

2.5.2 What are the major evaluation reforms of the university that the institution has adopted and what are the reforms initiated by the institution on its own?

From the academic year 2011-2012 the University of Mumbai introduced the credit based semester system of examination for the First year undergraduate classes, then next year it was extended to PG program first year and second year of UG programs. This year both UG and PG students are in the credit based semester system. Our Institution conducted workshops at departmental level for staff and students so that the transition was smooth. For the computerization of results new software which is customized has been developed. A unique code number has been allotted to every student so that his/her performance can be tracked in terms of credit accumulated and in case of failures the students can know which papers/components they have to appear in additional examination. The mark sheets have student photograph and are bar coded to ensure security.

2.5.3 How does the institution ensure effective implementation of the evaluation reforms of the University and those initiated by the institution on its own?

- The first and second year examinations are conducted by the college on behalf of the affiliating University.
- The guidelines are provided by the University.
- The final year examinations and the postgraduate examinations are conducted by the University.
- To ensure effective implementation the examination committee, Principal and Vice Principal and Heads of the departments discuss at length the mode in which it has to be implemented.
- The examination committee and the examination in charge ensure that any new initiative when it comes in force is implemented properly and all stakeholders are informed well in advance. For e.g. when the credit based semester system was introduced at the first year level in 2011-2012 workshops were conducted at various levels.
- Students along with the parents were invited for the workshop to educate them of the new process. The continuous evaluation system was explained to the students. This along with the preparation of the administrative staff helped us in proper

implementation of the initiative of the University of Mumbai.

- The stationery required was modified.
- The software for mark sheet generation was upgrade to incorporate the necessary changes.

2.5.4 Provide details on the formative and summative evaluation approaches adapted to measure student achievement. Cite a few examples which have positively impacted the system.

- In the formative assessment the student has an internal assessment component of 40 marks which has a written test, assignment. Marks are also awarded for active participation in the class including co-curricular activities. In addition class tests, oral testing, quiz, presentations are conducted by individual departments and the performance of the students are discussed to help them improve.
- The scores of the internal assessment is part of the results of the summative examination.
- The summative test of 60 marks is conducted at the end of the semester. The internal assessment also provides an opportunity for the teacher to identify the level of the learner and to take remedial measures. The summative evaluation tells the teacher of the capacity of the student to learn, retain and reproduce it in the examination in an effective manner.

2.5.5 Enumerate on how the institution monitors and communicates the progress and performance of students through the duration of the course/ programme? Provide an analysis of the students results/achievements (Programme/course wise for last four years) and explain the differences if any and patterns of achievement across the programmes/ courses offered.

- Most of the departments conduct regular tests. The assessed papers are given to the students with remarks for improvement.
- The students' performance is also communicated to the parents during the parents meeting conducted by individual departments.
- In case of first year and second year classes the students are given proper mark sheets and the teachers counsel them in case of deficiencies.
- In the third year the preliminary examination papers are assessed and papers are given back to them. Individual departments discuss the papers and also point out the areas where students can improve their performance. Advanced learners write an additional preliminary examination and slow learners also have an additional preliminary examination so that they

can prepare better.

- Results are analyzed and displayed on the notice board. The departments have an inbuilt mechanism of academic audit.
- For the first and second year examinations conducted by the college the examination in charge along with the examination committee analyses the results and discusses with the Head of the Institution. A skewed result is discussed with concerned department. The head of the Institutions conducts individual department meeting and discusses the results in their subjects and what efforts can be taken to improve the results both in terms of pass percentage and number of first classes and distinctions.

Year	Class	No. of students appeared	No. of students passed	No. of First Classes	Pass %
2009-10	T.Y.B.A.	261	222	38	85
	T.Y.B.Com.	357	298	169	83
	T.Y.B.Sc.	320	284	160	88.7
	T.Y. BBI	61	55	48	90
	T.Y. BMS	60	54	52	90
	T.Y.B.Sc. IT	65	47	39	72
	M.Sc.	70	59	38	84
2010-11	M.A.	69	65	05	94
	T.Y.B.A.	287	249	32	86.7
	T.Y.B.Com.	390	286	120	75
	T.Y.B.Sc.	379	274	122	73
	T.Y. BBI	57	57	56	100
	T.Y. BMS	53	46	45	87
	T.Y.B.Sc. IT	61	46	31	75
2011-12	M.A.	109	85	10	78
	M.Sc.	88	78	48	88.6
	T.Y.B.A.	296	264	33	89
	T.Y.B.Com.	350	310	266	89
	T.Y.B.Sc.	374	274	107	73
	T.Y. BBI	57	57	57	100
	T.Y. BMS	52	47	32	91
2012-13	T.Y.B.Sc. IT	57	43	25	74
	M.A.	98	95	13	97
	M.Sc.	106	93	41	87.7
	T.Y.B.A.	167	139	22	83.2
	T.Y.B.Com.	458	392	294	85.5
	T.Y.B.Sc.	369	271	102	73
	T.Y. BBI	63	56	51	88.8
2012-13	T.Y. BMS	87	80	78	93
	T.Y.B.Sc. IT	62	46	30	74
	M.A.	86	85	08	99
	M.Com.	34	34	06	100
	M.Sc.	89	82	51	92

Sr. No.	Year	Name of the Student	Programme and Subject	Merit Order
1.	2013	Ms. Aishwarya Parab	B.Sc. (Botany)	First
2.	2012	Ms. Sneha Pillai	B.Sc. (Botany)	First
3.	2012	Ms. Deepika Bhat	B.A. (Kannada)	First
4.	2011	Ms. Firdaus Khan	B.Sc. (Zoology)	First
5.	2011	Ms. Khusboo Bhardwaj	B.Sc. (IT)	First
6.	2011	Mr. Omkar Painaik	B.Sc. (Botany)	Third
7.	2011	Ms. Heena Khan	B.Sc. (Zoology)	Third
8.	2009	Ms. Maya Bhavesh	B.Sc. (Botany)	Second
9.	2009	Ms. Ummekulsum Kathanwala	B.Sc. (Zoology)	Third

2.5.6 Detail on the significant improvements made in ensuring rigor and transparency in the internal assessment during the last four years and weightages assigned for the overall development of students (weightage for behavioral aspects, independent learning, communication skills etc.)

Internal assessment has clearly defined weightages as mentioned below,

- Class test 20 marks
- Assignment 10 marks
- Overall conduct 10 marks

The assessment is based on a transparent system involving periodic tests, assignments, attendance in theory and practical classes.

2.5.7 Does the institution and individual teachers use assessment/evaluation as an indicator for evaluating student performance, achievement of learning objectives and planning? If 'yes' provide details on the process and cite a few examples.

Teachers use assessment and evaluation as an indicator for evaluating student performance. These are discussed at the departmental meetings to plan for improving the performances of the students. It also gives an insight on learners who can be guided and motivated to improve the grades and obtain University ranks.

2.5.8 What are the mechanisms for redressal of grievances with reference to evaluation both at the college and University level?

The students can apply for verification of marks within the stipulated period of time. In case of mistakes like totaling of marks and non-assessment of answers, the examination committee refers the papers back to the examiners for corrective measures. The students have the opportunity for applying for a photocopy of the

assessed answer paper by paying the prescribed fees within seven days of the declaration of the result and then apply for revaluation with justification. An external examiner who is an expert in the subject is appointed for looking into the strength of the claim made by the student. On receiving a positive suggestion from the expert the paper is revaluated and accordingly the result is declared. This provides enough opportunity to the student to satisfy his or her claim.

2.6 Student performance and Learning Outcomes

2.6.1 Does the college have clearly stated learning outcomes? If 'yes' give details on how the students and staff are made aware of these?

Learning outcomes are inbuilt in the syllabi. The staff and students are well aware of this and are informed about it before the commencement of the course.

2.6.2 How are the teaching, learning and assessment strategies of the institution structured to facilitate the achievement of the intended learning outcomes?

The learning outcomes determine the strategies for teaching, learning and evaluation. It involves monitoring of the student through mentorship if student show inability to achieve the intended learning outcome they are provided with remedial teaching and simplified reading materials are provided. Alternative methods are also adopted in some cases like learning through the help of diagrams or by writing equations, summarizing the chapter etc.

2.6.3 What are the measures/initiatives taken up by the institution to enhance the social and economic relevance (quality Jobs, entrepreneurship, innovation and research aptitude) of the courses offered?

To enhance the social and economic relevance of the courses offered we have taken the following initiatives:

- Introduction of projects at undergraduate and postgraduate levels
- Encouraging students to do practical's from application point of view.
- Provide internships to students to expose them to industry environment
- Encourage students to take up community based research work like solid waste management.
- Encourage students to undergo summer training
- In research/industry oriented program like M.Sc. Biotechnology six month research work in research organization/industry is integral part of the program. Our college with its linkages and collaborations have been able to provide positions

in leading organizations so that they get trained in frontier areas.

2.6.4 How does the institution collect and analyze data on student learning outcomes and use it for planning and overcoming barriers of learning?

As mentioned earlier the examination committee analyses the data on student learning outcome and discusses with the Head of the Institution who in turn has a detailed discussion with the teachers of each department. This helps in planning and implementing methods to overcome the barriers of learning. In our Institution in addition to the academic needs students need emotional support which is provided by the teachers through the tutor ward system wherein the teacher mentor is aware of the problems of the learner.

2.6.5 How does the institution monitor and ensure the achievement of learning outcomes?

The mentoring system in most of the courses and the excellent student teacher relationship has helped us to ensure the achievement of learning outcomes.

2.6.6 What are the graduate attributes specified by the college/affiliating University? How does the college ensure the attainment of these by the students?

The graduate attributes specified by the college are besides employability, social and ethical values of high standards, application skills, problem solving skills and to overcome any challenging situations.

Any other relevant information regarding Teaching-Learning and Evaluation which the college would like to include.

A student satisfaction survey is conducted by the college to find out the expectation of the student from the college and whether we have been able to achieve it. It also gives an insight on the areas of improvement. These surveys have always rated the faculty as excellent and they are completely satisfied with the teachers.