



Annual Progress Report of College

Internal Quality Assurance Cell

2020-2021

Name of the College	Fergusson College (Autonomous), Pune
Address of College	Fergusson College Road, Deccan Gymkhana, Pune
Type of College/Financial Status	Grant-In-Aid and Self Finance
Year of Establishment	1885
Status of College	Autonomous
Date of conferment of Autonomous Status by UGC	16 th June, 2016
Name of the Affiliating University	Savitribai Phule Pune University
Type of Faculty/ Programmes	Arts and Science
Name of Principal	Dr. Ravindrasing Pardeshi
Special Status	UGC-CPE and CE Status DBT STAR College Scheme and STAR Status UGC-STRIDE Scheme- Component-I
New Programmes Introduced (undergraduate/post graduate/ diploma/ Certificate)	M. Sc. Data Science Certificate in IPR Certificate Course in Content Writing

Curricular Aspects

1. The Second Year Undergraduate and Post-graduate syllabi for all courses were revised in the year 2020-21. Ever since the college became autonomous in June 2016, the college has striven to upgrade the syllabi to help students acquire theoretical and practical knowledge on par with national and global standards. The Program Outcomes, Program Specific Outcomes and Course Outcomes have been clearly spelt out for all the courses. Students too are made aware of these and there is a conscious attempt on the part of teachers to synchronize the whole learning process with the outcomes through student orientation and regular student interactions. Besides topics included in the syllabi that address local, national and global issues, an attempt is frequently made in the classroom to integrate all three. For example, when students get introduced to a topic such as cooperative banking at the local level in their Economics class, they are led to research on and discuss the best practices related to the same on the national and international levels. Apart from the interactive mode of learning that helps in this process of integration, flexible methods adopted for internal assignments permit students to actively explore, think critically and present their views and knowledge acquired to their peers and teachers alike.
2. Fergusson College has a rich legacy of imparting value-based education from its foundation during the Indian Renaissance. Autonomy has ushered in another Renaissance and given an impetus to incorporate relevant current issues of human

interest into the curriculum. Components such as gender, ethics and human values are a regular feature of classroom discussions in almost all social science and humanities courses, irrespective of whether these are mentioned separately in the syllabi or not. The paper in Human Geography covers issues related to demographics, inclusiveness, regional and other disparities including food security while examining man's relationship with his environment. Besides, there are exclusive papers related to gender in literature programs- Women's Writing in English is an option available to post graduate students. Environmental issues and ethical issues are an integral part of science courses. A course on Intellectual Property Rights is offered by the Biotechnology department. The Environmental Science department offers a course on Law, Ethics and Policy and a component on Women in Environment is included in the biodiversity course for post graduate students. Besides, separate events and activities are regularly organized by different departments to make students reflect critically on important contemporary issues. Apart from this the Social Outreach and Enabling Center (SOEC) organizes activities/ programmes/ lectures showcasing gender issues.

Feedback On Curriculum

Alumni Feedback on Curriculum

The College has developed good alumni network especially with alumni working with different industries. These alumni are often invited as industry experts on Board of Studies or invited as experts to interact with our students. Alumni also help our post graduate students to get internships and also assist in placement activities of the college. Alumni are also part of our Board of Studies and their inputs are actually taken while designing of the curricula.

The alumni feedback was implemented/collected from three different categories of students who graduated between the years 2015 to 2020.

1. Students who have completed only Undergraduate Program from the College.
2. Students who have completed only Postgraduate Program from the College.
3. Students who have completed both Undergraduate Program and Post Graduate from the College.

The feedback was rated on the scale of 1 to 5, where
5-Excellent, 4-Very Good, 3- Good and 2 - Satisfactory and 1 - Needs Improvement

Analysis of Alumni feedback for Faculty of Arts

1. 85% of alumni has found the current curriculum useful in their job or higher education; whereas around 8% thinks that it needs to be improved.7% people say it was satisfactory.
2. 90% of alumni has reported that the curriculum had enhanced their personal skills. Whereas around 6% thinks that it needs to be improved.4% people say it was satisfactory.

3. 79% of the alumni think that the curriculum has enhanced their professional skills, and 9% thinks that there is still scope of improvement. 12% people say it was satisfactory.
4. 84% alumni believed that the curriculum has enabled their critical thinking along with problem solving ability and social skills. 8% feel, there is scope for the improvement and remaining 8% say it was satisfactory.
5. 91 % of the alumni have confirmed that the curriculum has inspired them for self-directed and lifelong learning. 6% say there is still scope for the improvement. 3% believes that it is satisfactory.
6. 100% of alumni has reported that the curriculum had inspired self-directed and lifelong learning.
7. The teaching and learning process was found to be effective in 89% of the alumni. 5% say there is still scope for the improvement. Whereas 6% say it was satisfactory.
8. Above 89% of the alumni has reported that the current methods/test for the evaluation was good enough. 7% believe that it was satisfactory. Whereas 4% say there is still scope for the improvement.
9. It would be nice to include more case studies to gain a practical experience of analyzing the concepts. It also will help to understand how the concepts work in actual workplace.
10. In teaching digital technology can be implement for better improvement of student.
11. The most important aspect that needs to be focused is learning. The curriculum should be designed in a way that levels with the current standard, and not what the students might find it easy to grasp. When it comes to faculty, we expect professionalism and professors with complete understanding of the subject. Additionally, I also suggest there should be more transparency within the department. And also, I sincerely hope the coming batches can get better opportunity at placement.

Other noteworthy Observations

1. Fergusson has played a vital role in my life. After graduating, now I feel I have improved a lot than I was before.
2. Incorporating use of technology when there is a chance of better and effective learning.
3. Overall, the program was the best learning experience! It gave me insights into very interesting areas and has played an instrumental role in my personality development. One suggestion would be increasing the focus on some practical knowledge by provision of electives which could be helpful in later work life, eg, Digital Marketing in German, Business German vocabulary etc.
4. Flexible assignments were helpful in exploring different methods of research and presentation for the topics related to syllabus. Long answer questions can be added to online CEs instead of only MCQs, especially for subjective courses like languages.
5. Improvement of teaching quality and provide standard study material, give compulsory reading every chapter wise and improve students critical thinking abilities. Provide guidance about JNU, DU and other central university entrance examination.
6. The number of guest lecturers from respective industries need to be increased.
7. Job opportunities should be communicated to alumni.

Analysis of Alumni feedback for Faculty of Science

1. 88 % of alumni has reported that the curriculum is relevant for their job or higher education. Whereas around 6 % thinks that it needs to be improved. 6% people say it was satisfactory.
2. 87 % of alumni has reported that the curriculum enhanced their personal skills. Whereas around 2 % thinks that it needs to be improved. 11% people say it was satisfactory.
3. 85 % of alumni has reported that the curriculum enhanced their professional skills. Whereas around 4 % thinks that it needs to be improved. 12% people say it was satisfactory.
4. 83 % of alumni has reported that teaching and learning processes are very much effective . Whereas around 7% say that it needs to be improved. 10 % people believes it was satisfactory.
5. 80 % of alumni has reported that the curriculum enabled critical thinking , problem solving and social skills. Whereas around 7 % thinks that it needs to be improved. 13 % people say it was satisfactory.
6. 86% of alumni has reported that evaluation methods are very much effective . Whereas around 5% say that it needs to be improved. 9% people believes it was satisfactory.
7. 92% of alumni has reported that the curriculum had enhanced their personal skills.

Suggestions/Recommendations

1. Students need to have interactions with industry experts.
2. Curriculum should have some topics such as research methodology, research paper reading and literature survey.
3. In few departments, alumni have suggested to improve the lab resources such as equipment.
4. Number of students undergoing internships need to be improved
5. Students need to have a platform (a dedicated committee) to convey their problems apart from their own teachers.

Other noteworthy observations

1. Excellent staff and self- direction for curriculum and lifelong learning. Great experience for both the graduation programs.
2. Peer learning, Alignment of projects, Assessments & Syllabus with the Industry structures, Focus on holistic development & Blended learning, these are the avenues where we can think of improving.
3. More seminars or lectures from industrial experience personnel. Career guidance lectures from broad perspective is essential
4. Help and support of Mentorship programme has been noted by most the alumni and have agreed that, it has helped them to improve specially to cope up with assignments and learning of courses.

Teaching- Learning and Evaluation

Assessment of Learning Levels

The college has taken conscious efforts to identify the learning levels of students. The students are continuously monitored during the continuous evaluations that are conducted across the entire span of the semester. The flexible component of the continuous evaluation allows teachers to assess various aspects of learning like subject content, presentation skills, communication skills, research orientation and capabilities. A diagnostic test is conducted by all departments for first year post graduate students to assess their learning levels. Based on this diagnostic test and the subsequent report, the slow and advanced learners are categorized to enhance learning support for slow learners. In addition to the monitoring through continuous evaluation components and regular interactions in the classroom and laboratories, provides a fair idea regarding the students' learning level among their peers. The slow learners are constantly motivated by faculty members to pursue activities towards capacity building in the areas where they need more attention. Bridge and remedial sessions are conducted for such students from time to time to ensure that, they reach the optimum learning level as compared to their advanced peers. Bridge courses have been a regular practise in foreign language departments like German, where all students need to undertake collaborative learning is also practised by few departments where advanced learners make presentations and slow learners ask queries. The mentoring sessions which are extensively carried out by our teachers help in understanding their learning needs and based on that, guidance is provided. Workshops are conducted to address spoken English, soft skills and communication skills for the slow learners. The advanced learners are encouraged towards participation in various competitions at Regional/State/National/International levels catering to subject matter, entrepreneurial and research capabilities. Such students are also motivated towards taking up internships and are given opportunities to undertake research projects being conducted at the college under various funding schemes. Advanced learners are also encouraged and guided to undertake small projects in collaboration with national laboratories and industries which helps them in building their professional skills. They also participate in meteor shower observations and provide data from India to International Meteor Observations. This year, as a part of teaching assistantship, PMRF (Prime Minister's Research Fellowship) research fellows engaged in teaching our post graduate students for the entire year, where they gave inputs about the new innovations and research areas. This was a part of collaboration for teaching with IISER, Pune. Regular interactions with Industry and Academic experts, Guest lectures and workshops specifically in transdisciplinary areas arranged to provide insight into various subject specific content beyond the curriculum to enhance subject matter expertise of the advanced learners.

ICT in Teaching-Learning

The effectiveness of the teaching and learning process depends on the available infrastructure, motivated and trained teachers and quest of knowledge among the students and teachers alike. The institute caters to these needs by providing library facilities which can also be accessed through the online public access catalogue (OPAC). The library is replete with latest editions of National and International reference books and subscriptions to journals and e-resources beneficial for both students and teachers. Almost all the classrooms and majority of the laboratories are ICT enabled. The college encourages all teachers to undergo training programs,

to enhance their knowledge and use of ICT to deliver effective lectures through the use of PPTs, videos and animations, prepared by teachers or use of resources available online. At the beginning of the year 2020, the teaching methodology changed completely and teachers had to shift entirely to the use of online platforms for teaching and evaluation. The college provided an enterprise resource planning software (ERP) system along with the licence for Microsoft Teams. Both these resources are being utilized for data management, conduction of online exams and online classes respectively which were also streamed online. Google meet and Zoom platforms have also been used for online classes. Several faculty members have their subject specific YouTube channels for teaching-learning. A database of e- resources for all the courses is now available with all departments for all courses taught under all academic programmes. Practical components have been covered using virtual laboratories, simulations therein, online resources for plotting and analyzing graphs, for better understanding along with demonstrations. One of the important initiatives taken during the pandemic was recoding of books and course material for blind students where students participated in very large numbers and the College has now has a huge database of recorded books. Use of Online resources such as Swayam, NPTEL, Shodhganga, and IIT course lectures and course material are used for enhancing the teaching learning process. Academic flexibility has provided a good platform for innovative methods of evaluation based on presentations, group discussions, video assignments, online quizzes, peer assessment, open book test etc. using ICT resources such as ITLE module of ERP, Google classroom, Google forms, Edmodo, Microsoft forms, Moodle, Piazza, etc. Many activities like online talks, competitions, bimonthly newsletter publishing, edutainment, etc were arranged to add to the academic activities of the students. Provision to earn credits through massive open online courses (MOOCs) has also been introduced at the PG level in their course structure.

Evaluation

The examination system has been under continuous restructuring and reformation with reference to IT integration. IT has been integrated into the examination system and used for generating examination forms (Registration) for all classes and for all programmes, conduction of online Continuous Internal Assessment- II, result processing, grade card generation etc., this module is also used for maintaining examination data like examination ledgers, convocation data, result analysis reports including dates on which the student has appeared/ passed the examination, it can also create toppers list (subject wise). Further, it has also been used for class improvement examination. Integration of Extra Credits is now under process and will be implemented till next academic year. The College/ Examination Section uses MASTERSOFT ERP ITLE module for conducting examinations. The ITLE module is utilized for conducting and has been used for conducting all theory examinations.

OBE Model

Program outcomes (POs), Program Specific Outcomes (PSOs) and Course Outcomes (COs) are uploaded on the official website of the college. POs for undergraduate and postgraduate programmes have been stated in alignment with vision and mission of the college in consultation with IQAC members, heads of the department, programme coordinators, senior faculty members, alumni and external academic experts collectively and displayed on college website. Every department have formulated PSOs and COs for their respective disciplines with inputs from all the stakeholders. POs, PSOs and COs have been approved by Board of Studies

and Academic Council. The same have been incorporated in the department's syllabi and is made available on the college website. This facilitates those seeking admission into Fergusson College to enroll for a specific programme and understand the learning outcomes along with syllabus.

The COs are expressed as sentences which clearly describe what level of knowledge, skills, and attributes students will gain upon successful completion of the course. COs have been written as per revised Bloom's taxonomy and are measurable, attainable and manageable in number (6 COs for 2-4 credits course).

During the orientation programmes at the college level, students are made aware of the OBE process along with POs, PSOs and COs being displayed on the website. All Head of the departments and faculty members communicate the same to the students at respective departments. During start of the teaching session, the faculty teaching a particular course disseminate the COs to all the students along with its relevance towards the learning. This is reinforced at periodic intervals in the semester along with its correlation with the assessments.

Objectives of the OBE Policy

- To adhere to Outcome Based Education by using student-centric learning approach and measure student's performance based on pre-determined set of outcomes.
- To create, encourage and maintain a favorable empowering learning environment and facilitate learner-centric teaching and learning process in the institution.
- To bring out reforms in curriculum framework that has to be outcome based; constant up gradation of academic resources; raising quality of research and teaching; technology integration in the teaching-learning processes; bringing out clarity among students as to what is expected from them after completion of the programme and for teachers in bringing focus on what to teach, how to teach and evaluate.
- To impart quality learning experiences that lead to attainment of the PEOs, POs, PSOs and COs and demonstrate the graduate attributes focused on by the institution.
- To organize the curriculum content, teaching, learning and assessment methods in alignment with COs, POS, PSOs, PEOs and mission statement of the institution constructively.
- To define course outcomes that reflect higher order thinking skills of cognitive domain as per classification of revised Bloom's Taxonomy and are in terms of requisite global competencies for the sustainable future.
- To contribute to the Total Quality Management of the College and initiate a wide concept for the quality enrichment and enhancement initiatives.
- To practice Continuous Quality Improvement (CQI) on real time basis through reviews, feedbacks, gap analysis and corrective actions.

OBE Team

OBE Team looks into the effective dissemination of information and implementation of OBE process. It consists of Principal, IQAC coordinator, members of IQAC and OBE coordinator from each department. OBE coordinators are highly committed to take a representational role and their role is to actively participate in relaying OBE related information to relevant departments wherever required and also help department to implement OBE process smoothly. This committee shall play an active role in developing and implementing the OBE model in college. It shall put in place the reasonable infrastructure required to ensure that the outcomes are measured and achieved. The committee will assist and advice IQAC in matters relating to OBE within the college.

Responsibilities of the OBE Team:

- To establish Vision and Mission statement of Fergusson College.
- Define Program Educational Objectives (PEOs) and Programme Outcomes (POs) of each programme in alignment with vision and mission statement of Fergusson College.
- To validate the attainment of mission statement and Program Educational Objectives (PEOs) of each program.
- Guide respective departments in defining Programme Specific Outcomes (PSOs)
- Map PEOs with POs and help department to map PEOs with PSOs
- Guide faculty in defining Course Outcomes (COs) with Bloom's Taxonomy for each Course.
- Guide faculty to map CO with POs and PSOs at suitable levels of Bloom's Taxonomy.
- Guide faculty in mapping content/Module/Topics with COs.
- Guide faculty in mapping Questions with CO's at Bloom's Taxonomy levels & Assessments
- Suggest multiple and customized assessment tools and methods that suit the students of diverse nature and serve as a background for measuring learning outcomes/ performances.
- Define rubrics with Bloom's Taxonomy and COs
- Track OBE process in departments and assure its smooth implementation.
- Guide in measuring the attainment of each PO through Direct/Indirect assessments
- Assess the attainment of pre-defined objectives and outcomes
- Arrange for training and orientation sessions for staff and students
- Circulate OBE related notices and circulars for staff and students
- Disseminate OBE related information through various means.
- Any other work related to development and implementation of OBE framework

OBE Process and Procedures

Fergusson College is committed to adopt and initiate the implementation of OBE in the institution in the phase wise manner. The core philosophy of outcome based education rests in adhering to a student centric learning approach used to measure students' performance based on a predetermined set of outcomes. For this, implementation process of OBE module has been designed in a planned way by following set procedures.

I. Defining Outcomes and Development of OBE framework

Program Educational Objectives (PEOs), Programme Outcomes (POs), Programme Specific Outcomes (PSOs) and Course Outcomes (COs) are the building blocks for OBE framework/system. These has been defined with the help of all stakeholders.

Process followed for defining Programme Specific Outcomes (PSOs) with Programme Educational Objectives (PEOs)

Program educational objectives (PEOs): PEOs are the broad statements which specify what the graduates of the program are expected to achieve within 4-5 years of completing the programme. PEOs has been defined following the Mission of the College and inputs are taken from the stakeholders and published on college website. Four PEOs have been written targeting five different programme run by college, i.e. B.A., M.A., B.Sc., M.Sc and B.Voc.

Sample PEOs for M.Sc. programme:

PEO1	Facilitate value-based holistic and comprehensive learning by integrating traditional and innovative learning practices to match the highest quality standards and train students to be effective leaders in their chosen fields and career.
PEO2	Provide conducive environment to unleash their hidden talents, creative potential, nurture the spirit of critical thinking and encourage them towards higher education so as to cater the needs of the industry/society and contribute for the development of the nation.
PEO3	Equip students with skills needed to adapt better to ever changing global scenario by encouraging innovative practices, research competence and entrepreneurial skills and gain access to career opportunities in multidisciplinary domains.
PEO4	Develop a sense of social responsibility, ethics and equity to transform students into commitment-oriented professionals having strong attitude towards sustainable development for betterment of society.

Programme outcomes (POs): POs are the statements that describe what graduates of any undergraduate or postgraduate Arts, Science and Vocational programme should demonstrate at the time of completion of graduation. Once PEOs has been defined, these objectives led to the development of POs. POs which were earlier referred to as Graduate Attributes is all about what is expected from a graduate in his years of graduation. As POs of all professional programmes in engineering and other areas are identified at national level by NBA and concerned accrediting agency, no agency has defined the POs of General Higher Education programme in India. Therefore, college with the help of stakeholders have defined nine POs specific for five different programme (i.e. B.A., M.A., B.Sc., M.Sc. and B.Voc.) offered by Fergusson College keeping in mind PEO statements and referring sample POs given in 'NAAC Institutional Accreditation Manual for Self Study Report for Autonomous Colleges' and POs defined by NBAs as per Washington Accord's Programme Learning Outcome. For defining POs, inputs were taken from IQAC members, Heads of the department, Programme coordinators, senior faculty members, alumni and external academic experts collectively. Theses inputs were analyzed by the IQAC and OBE-Team. After proper revisions, POs were

finalized and communicated to Academic council members and published on the college website.

Sample Program Outcomes (POs) for M.Sc Programme

PO1	<p>Disciplinary Knowledge: Demonstrate comprehensive knowledge of the discipline that form a part of an postgraduate programme. Execute strong theoretical and practical understanding generated from the specific programme in the area of work.</p>
PO2	<p>Critical Thinking and Problem solving: Exhibit the skill of critical thinking and understand scientific texts and place scientific statements and themes in contexts and also evaluate them in terms of generic conventions. Identify the problem by observing the situation closely, take actions and apply lateral thinking and analytical skills to design the solutions.</p>
PO3	<p>Social competence : Exhibit thoughts and ideas effectively in writing and orally; communicate with others using appropriate media, build effective interactive and presenting skills to meet global competencies. Elicit views of others, present complex information in a clear and concise and help reach conclusion in group settings.</p>
PO4	<p>Research-related skills and Scientific temper: Infer scientific literature, build sense of enquiry and able to formulate, test, analyse, interpret and establish hypothesis and research questions; and to identify and consult relevant sources to find answers. Plan and write a research paper/project while emphasizing on academics and research ethics, scientific conduct and creating awareness about intellectual property rights and issues of plagiarism.</p>
PO5	<p>Trans-disciplinary knowledge: Create new conceptual, theoretical and methodological understanding that integrates and transcends beyond discipline-specific approaches to address a common problem.</p>
PO6	<p>Personal and professional competence: Perform independently and also collaboratively as a part of team to meet defined objectives and carry out work across interdisciplinary fields. Execute interpersonal relationships, self-motivation and adaptability skills and commit to professional ethics.</p>
PO7	<p>Effective Citizenship and Ethics : Demonstrate empathetic social concern and equity centred national development, and ability to act with an informed awareness of moral and ethical issues and commit to professional ethics and responsibility.</p>
PO8	<p>Environment and Sustainability: Understand the impact of the scientific solutions in societal and environmental contexts and demonstrate the knowledge of and need for sustainable development.</p>
PO9	<p>Self-directed and Life-long learning: Acquire the ability to engage in independent and life-long learning in the broadest context of socio-technological changes.</p>

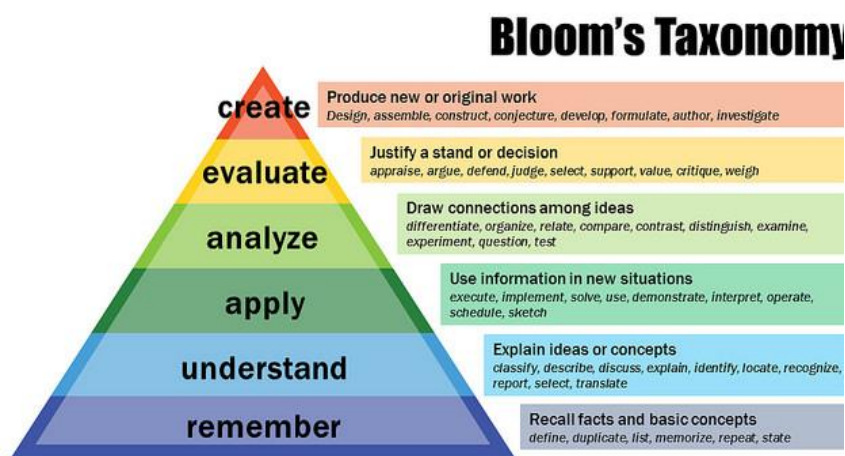
Programme Specific Outcome (PSOs): PSOs are the statements that describe what the graduates of a specific educational programme should be able to do at the time of graduation. These statements have been written by specific departments for a particular programme that department is offering (eg. B.A. Psychology, M.A. Economics, B.Sc. Chemistry, M.Sc. Physics etc.) based on four competencies related to specific graduate programme. POs involved inputs from Head of the departments, Programme coordinator, all faculty member and other stakeholders. These inputs were analyzed by the IQAC and OBE-Team. After proper revisions, PSOs were finalized and communicated to Board of Studies (BoS) committee members, Academic council and published on the college website.

Sample PSOs for M.Sc. Biochemistry:

PSO No.	Program Specific Outcomes(PSOs) Upon completion of this programme the student will be able to
PSO1	<p>Academic competence</p> <p>(i) Articulate fundamental concepts, principles and processes underlying the field of biochemistry and its different branches (ranging from biomolecules, metabolism, nutrition, cell biology, genetics, enzymology, immunology, physiology, endocrinology, plant biochemistry, molecular biology to genetic engineering, neurochemistry) and its linkage with related disciplinary areas/subjects.</p> <p>(ii) Demonstrate an understanding and be able to explain a wide range of biochemical techniques (e.g. basic molecular biology, genetic engineering, microbiology methods, spectrophotometry, enzyme kinetics, chromatography, electrophoresis, immunological assays)</p>
PSO2	<p>Personal and Professional Competence</p> <p>(i) Exhibit decision making skills in subject related tasks, demonstrate soft skills and sustain in life science industry.</p> <p>(ii) Plan experimental methodology and perform independent laboratory-orientated numerical calculations, data interpretation, scientific writing and authentic reporting.</p> <p>(ii) Identify biochemistry related problems and use appropriate concepts and methods to solve them.</p>
PSO3	<p>Research Competence</p> <p>(i) Review scientific literature, develop a hypothesis and formulate scientific protocols and conduct appropriate experiments.</p> <p>(ii) Plan and execute research projects professionally while emphasizing on academic and research ethics, scientific misconduct and creating awareness about intellectual property rights and issues of plagiarism</p> <p>(iii) Integrate informatics and statistical skills to explore and authenticate biological data for experimental and research purpose</p>
PSO4	<p>Entrepreneurial and Social competence</p> <p>(i) Design techniques and solutions towards specific areas related to biochemistry such as industrial, clinical, health, agriculture and others.</p> <p>(ii) Demonstrate social skills, social communication and interpersonal communication and participate in an effective and constructive way in different environments of social and working life.</p>

Course Outcomes (COs): These are the outcomes/knowledge which every student is expected to gain at the end of completion of each course (subject). These are listed and based on them the course curriculum is finalized. COs are narrower statements that describe what students are expected to know, and be able to do at the end of each course. It should reflect what level of knowledge students gained, skills acquired and attributes developed upon successful completion of the course; COs must be measurable, attainable and manageable in number. COs should contribute to attain POs in such a way that each CO should address at least one of the POs and PSOs and also each PO and PSO must be reasonably addressed by adequate number of COs. COs have been defined by the course/subject teacher which has been kept to six COs for 2-4 credits course as per the recommendations given in 'NAAC Institutional Accreditation Manual for Self-Study Report for Autonomous Colleges'. Following pointers were followed while drafting COs:

1. COs should begin with an action verb that denotes the level of learning expected as per revised Bloom's taxonomy. Terms such as know, understand, learn are not used as they are not specific enough to be measurable.
2. Measurable verb should be followed by the statement which describe the knowledge and abilities student should demonstrate.
3. COs should be clear to the students and teachers and proper verbs from all the six cognitive domains (Remember, Understand, Apply, Analyze, Evaluate and Create) of Bloom's taxonomy should be used.
4. All course contents should be considered while writing COs



COs were defined by teachers based on above steps and inputs were taken from Head of the departments, Programme coordinator and all faculty member. Theses inputs were analyzed by the IQAC and OBE-Team. After proper revisions, COs were finalized and communicated to BoS committee, Academic council and published on the college website.

Sample COs for M.Sc. Biochemistry:

Title of the Course and Course Code	Metabolism (CHB4202)	Number of Credits : 04
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On completion of the course, the students will be able to:		Bloom's Cognitive level
CO1	Recall the structure of metabolic intermediates and names of enzymes.	1
CO2	Explain and illustrate the steps in biochemical pathways along with their regulations.	2
CO3	Apply knowledge of genetics and enzymology to understand the formation of specific intermediates in biochemical pathways and inborn errors of metabolism.	3
CO4	Classify the types of metabolic reactions and outline the concepts of bioenergetics.	4
CO5	Justify varied conditions required for the occurrence of desired metabolic reactions.	5
CO6	Rearrange and write the correct sequence of fates of metabolic products based on the specified physiological conditions.	6

II. OBE Implementation and Mapping Process

OBE implementation and mapping process is supported by an outcome-based education software to bring operational ease and efficiency towards OBE process and provides assessment reports. College shall follow the following mentioned levels of mapping.

- 1) Mapping of mission statement with Program Educational Objectives (PEOs): Take stakeholders opinion to map the mission statement with PEOs and give appropriate weightage on the scale of 0 to 3 (0- None, 1- Low, 2- Medium, 3-High). Inputs are analyzed by IQAC and OBE Team and approved by Academic council.
- 2) Mapping of Program Educational Objectives (PEOs) with Programme Outcomes (POs) : Take stakeholders opinion to map the PEOs statements with POs and give appropriate weightage on the scale of 0 to 3 (0- None, 1- Low, 2- Medium, 3-High). Inputs are analyzed by IQAC and OBE Team and approved by Academic council.
- 3) Mapping of Program Educational objectives (PEOs) with Programme Specific Outcomes (PSOs): This should be done at specific departmental level as per the following instructions:
 - i. Mapping process of PSOs and PEOs should be done on the principle that the faculties involved have a thorough understanding of the programme curriculum, content, PSOs and PEOs.
 - ii. For PSO-PEO mapping, set an appropriate weightage on the scale of 0 to 3 (0- None, 1- Low, 2- Medium, 3-High) and prepare a mapping matrix.
 - iii. Head of the department, Programme coordinator, OBE coordinator and all faculties should come together and discuss, analyze and finalize the weightage given on mapping matrix.

	PEO1	PEO2	PEO3	PEO4
PSO1				

PSO2				
PSO3				
PSO4				

- iv. Share the final mapping matrix with the Board of Studies (BoS) committee members along with PSOs and PEOs statements and get the approval (through email).

4) Mapping of Course Outcomes (COs) with Programme Outcomes (POs) and Programme Specific Outcomes (PSOs): The COs should be mapped to the POs/PSOs which will provide the quantitative measurement of how well the program outcomes are achieved. Following instructions should be followed for the process:

- i. Faculty involved in preparing and teaching COs based on the syllabus should map the COs with POs and PSOs with the help of other senior faculties and prepare a mapping matrix as follows

	PO 1	PO 2	PO 3	PO 4	PO 5	PO 6	PO 7	PO 8	PO 9	PSO 1	PSO 2	PSO 3	PSO 4
CO 1													
CO 2													

- ii. Strength of correlation should be assessed on the basis of teacher's understanding of course content and be given a weightage on the scale of 0 to 3 (0- None, 1- Low, 2- Medium, 3-High)
- iii. Faculty should share CO-PO/PSO mapping matrix with Head of the department, Programme coordinator and OBE coordinator for their inputs. Once approved, share the mapping matrix with BoS committee members and get the approval.
- iv. All COs should be mapped to relevant POs and PSOs and not to all. Ideally COs of a particular course should be mapped to 2-4 POs and 2 PSOs (approximately). On the completion of a particular programme, COs would be mapped to the maximum POs and PSOs.

5) Mapping of CO with Assessments and Questions:

Methods of assessments are most vital tools to monitor the process of OBE. Assessment methods include direct methods and indirect methods. Direct method of CO assessment is based on Internal examination (Continuous evaluation or CE) as well as End Semester Examination (ESE) using various modes which should cover all the COs throughout the semester. To achieve this, faculty should prepare a question bank where each question/assignment should be mapped to the corresponding CO.

Table: Direct Assessment tool used for CO attainment

Sr. No.	Evaluation (Theory)	Max Marks	Mode of Assessment	Mapping of Questions with Course Outcome
1	Continuous Evaluation (CE – I) (Internal)	10	Theory: Group Discussion or Report or Note or Book Review or Assignment or Essay	As per the course and CO
		15	Theory: Written Test or Open Book Test or Seminar or Presentations	As per the course and CO
2	Continuous Evaluation (CE – II) (Internal)	25	Theory: MCQ/Subjective test	As per the course and CO
3	End Semester Examination (ESE)	50	Theory: Online MCQ/ Subjective paper based test	Based on all the CO and entire syllabi

Sr. No.	Evaluation (Practical)	Max Marks	Mode of Assessment	Mapping of Questions with Course Outcome
1	Continuous Evaluation (CE)	25	Assignment, questions/test or other assessment method as per the course requirement	As per the course and CO
2	Continuous Evaluation (CE – II) (Internal)	25	Report/Journal, viva, conduction of practical, questions/test or other assessment method as per the course requirement	As per the course and CO
3	End Semester Examination (ESE)	50	Journal, viva, conduction of practical, questions or assessment as per the course	Based on all the CO and entire syllabi

Outcomes for the programme which has Project component as a course in their syllabus, is also assessed as per the OBE guidelines using rubrics and direct assessment is done via Internal (CE) and End Semester Exam (ESE).

Indirect assessment in the form of various surveys such as exit survey, employer feedback and alumni feedback should be planned and maintained at department level.

Rubrics are formulated for the various assessments methods like seminars, assignment, project courses.

III. Attainment Process

The attainment of COs, POs and PSOs should be evaluated by direct and indirect assessment tools which should be given weightage of 80% and 20% respectively.

Direct attainment of COs should be measured by the various assessment methods adopted during Continuous Evaluations (CE) and End Semester Examinations (ESE). The performance of the students in the examinations during the semester in each course should be used to compute the level of attainment of the POs and PSOs through the mapping of questions to COs and COs to POs and PSOs

The attainment of each CO will be computed by setting the class average mark as the threshold target decided by the faculty from individual department along with OBE coordinator and other faculty members.

The threshold targets are quantized and measured on a scale (0-3) as follows:

of CO attainment %	Class average >70%	Class average > 50% and <= 70%	Class average <=50%
CO attainment level	3	2	1

For each course, the attainment level of each CO should be compared with predefined threshold targets, and if not attained, the concerned faculty should prepare a gap analysis report and take necessary steps for the improvement to reach the target.

IV. Attainment Analysis:

Head of the department along with OBE coordinator and faculty should analyse the attainment reports of each course and make a plan to improve student learning and assessment methods. The OBE process involving outcome based teaching-learning and assessment provide a clear picture of the strength and weakness of the programme at different levels. This process should be utilised to devise action plans for improvement which should be implemented in the next semester.

This analysis will determine whether there is a need for improvement of the CO attainment process for the next semester. CO attainment analysis report inclusive of action plans for the next semester will be sent to Head of Department (HOD) for verification and placed in Course File.

Student Centric Learning Methods

A. Experiential learning:

The focus of experiential learning is education through first-hand experience that includes knowledge, Skills and experience acquired outside of the traditional academic

classroom setting. The teachers are actively involved in and also encourage the experiential method of learning by way of:

a. Internships/Projects:

Students participate in summer internships, carry out projects in research institutes, undertake Industry based projects to experience the work environment, understand the technical know-how and practical application of their subject.

b. Workshops/Training Programmes

Regular organisation of: Hands-on training workshops, workshops in collaboration with Industry/Institutes and other subject specific programmes under different aegis such as DBT STAR college, UGC – STRIDE, UGC- CE etc. Training workshops for imparting skills and improving the employability of the students. Entrepreneurship aptitude development activities, competitions, Field work/ field-based projects/Survey based projects

c. Industrial /Field Visits/Guest Lectures/Seminars

The institute practices the vestibule experiential method by organizing industrial visit of students that gives the students an opportunity to interact with industry personnel and experience the work environment of the same.

Interaction via Guest Lectures by eminent personalities (Industry or Academia) in respective fields. Organization of Interdisciplinary/Social / Emotional health themed Seminars and Guest lectures, Inspirational talks by prominent alumni

d. Organisation of programs/activities by students

Students are involved in organising various curricular and extracurricular programs such as public events, seminars, Quiz competitions, exhibitions, publishing newsletters, promoting various important issues and organising programs via social media platforms thereby gaining experience of organisation and management skills

B. Participative learning

Participative learning motivates/stimulates creativity and interest, encourages co learning and creates a learning ecosystem

Students participate in Group discussions, Podcasts, Blogs, Debates, role plays, Presentations, Committees, Departmental club activities, Poster /Oral presentations in Conferences, Cultural, social and sports events (International, National, State, District, College Level).

C. Group Learning

Group activities like projects, interdisciplinary activities, Discussions, assignments, surveys, video making, poster/model making.

D. Problem Solving Methodologies

Methodologies like case studies, small projects, giving high order thinking questions, analytical problems and conducting problem solving sessions.

Research, Innovations and Extension

Updated Research Facilities

The College has research facilities in each science departments especially departments which are recognized as research centres by the University. Facilities for research which include instrumentation, computers and related software are updated timely as per the need of research. The policy for updation for research facilities depends on the need for research, available capital budget from the college and also under various college schemes supported by UGC, DBT and BRNS. The requisitions are raised by the departments and then a decision is made on the purchase or updation of the research facilities. In recent times, the college purchased Battery tester needed for testing battery applications which is supported by ISRO. Thermal Evaporator has been purchased for a project funded under BRNS scheme. Similarly, software like MATLAB and MATHEMATICA have also been purchased and used by the teachers and students. Optimizer Sprayer, Digital microscopes (6) and Cathetometer have also been added to research facilities.

Establishment of PC Shejwalkar Center for Entrepreneurship and Incubation

The College and the parent organization – Deccan Education Society (DES) has taken research, entrepreneurship, community orientation and incubation are promoted with dedicated spaces marked especially for setting up Incubation center. With concerted efforts Deccan Education Society has established *Dr. P. C. Shejwalkar- Center for Entrepreneurship and Incubation*. This center will be partnered by two colleges/institutions- one our college and our sister concern -Institute for Management Development and Research (IMDR). A joint proposal has been submitted for funding to Department of Science and Technology under the Scheme- NSTEDB (*The National Science & Technology Entrepreneurship Development Board*) titled “*IT and Futuristic Technology enabled Environmental, Geological and other Science and Technology Applications for Sustainable Development*”. As a parallel effort the Governing Body of DES has also made a resolution for financial investment in the setting up of incubation Center.

Extension Activities

The Social outreach and Enabling Center (SOEC) carried out activities in the neighborhood sensitizing students to variety of social issues which helps in their overall development. The SOEC carries out extension activities independently as well as in collaboration with NGOs for which the college has entered into MoUs. The activities included:

1. Newsletter initiative (MUSE Club) highlighting topics which are tabooed in the society.
2. Survey on Menstruation and MAASIKA MAHOTSAV which addressed issues faced by menstruators.
3. Hysterectomy in sugarcane cutters and reproductive issues associated with it.
4. Polycystic Ovarian Syndrome- Awareness on basics of the syndrome and effect on the body.

5. GREENSTEPS (an initiative under SOEC) focused on making life on campus more neat, clean, green and eco-friendly.
6. Support as volunteers in SAMUTKARSHA project (in collaboration with SEVA SAHYOG Foundation) for urban slum development. In this, 63 Community Learning Centres (CLCs) that teach close to 4800 students have been achieved. They are taught English, Science, Maths and Computers along with value education. Due to the Covid 19 pandemic teaching was conducted through online. Children used their parents' phones to attend classes.

Apart from the above, SAATHI enabling center which has been established by the College for providing support to differently abled students (especially students with blindness). During this year, peers helped these students in admission form filling and other administrative activities related to admissions. Promoted formal interactions to know them and to interact with them. The shift from classroom to e-learning was a drastic change in their lives. Volunteers/peers of SAATHI helped blind students to cope up with the situation and helped them in their academic progression. About 300 sessions were conducted for these students.

Infrastructure and Learning Resources

The College is committed for supporting and promoting effective teaching and learning practices. The aim is to create an environment that values all perspectives, experiences, and contributions, where the faculties and learners can engage themselves for better academic prospects. The College is enhanced with a well-equipped infra structure that supports the advancement towards teaching-learning equipment's and infrastructure. All science departments have separate buildings and laboratories for general as well as research programmes. All science laboratories are ICT supported. The Department of Animation laboratories have high end facilities like workstations with 2D and 3D animation. The facilities include sufficient number of classrooms (86) and laboratories that support current trend of teaching learning practices. For research the college has Atomic Absorption Spectrometer, HPLC, Microscope with camera Digital Camera with SW Kits, Stereo Zoom Microscope Phase Contrast Microscope, UV Visible Spectrophotometer, Trinocular research Microscope, Cooling Centrifuge, Spectrophotometers, Compact Cooling Centrifuge Seed Germinator, RF Signal Generator N9310A, 70mHZ 2+8 Digital Channel DMM MSO, Digital Storage Oscilloscope Rotary Shakers, Horizontal Laminar Air Flow BOD Incubator Led Version, Colling Incubator, Humidity Chamber, Geiger Muller Counting System, Optical Bench, High Temperature Magneta System, Antenna Trainer Kit, High Temperature Tube Furnace, Rotavapour, Spin Coater, Spray Pyrolysis Equipment Gas Sensing Chamber, Keithley Source Meter, Sensor testing setup, Cryostat Circulating Bath Faraday Effect Experiment Kit, Electrochemical Spectroscopy systems (Galvanostat/ Potentiostat), SSP3 Photometer, Celestron Telescope and B 1200 Solar Telescope. The College has also established Automated Dome (3 meters) for remote astronomical observations. As a part of Virtual Reality, the college is equipped with 5DT Data gloves and 3D Printer for high end project implementation. Other teaching-learning facilities include Language Laboratory, Computer laboratories and Computational Centres / IT Zones with net connectivity for students which are housed in Central Library. Geology, Physics and Zoology Departments have museums with a rich collection of specimens and scientific models. Ni myDAQ University Bundle- Hardware and two software- Multisim and Lab View, UVis Spectrophotometer, Probe Sonicator, Cooling Incubator, Optimizer Sprayer, Digital Microscopes, Cathetometer, Integrated Community Computer (K-Yan) with inbuilt Interactivity, LED Monitors and portable DLP Projectors have been added in this academic year. The college has also purchased MICROSFT TEAMS and now being used extensively for online education.

Library and Library Services

The library provides a remarkable collection of statues and posters, dedicated to outstanding national leaders and educationalists. Recently, the Library has been funded by National Archives of India for digitization of old and rare manuscripts. To keep pace with changing needs of the learner, the library is undergoing automation. The library now focuses more on procurement of e-books and e-journals which are made available to students through their ERP log ins. The e-journals and digital learning facilitated by the library enriches the students to be a part of a reading culture on par with global standards. The College has blend of tradition and modern learning resources that enriches the library atmosphere for the students. In addition to this, the college is also a member of NLIST-INLIBNET and DELNET which has added value to learning resources.

Policies and Procedures

All Policies and Procedures have been revised and published on the college website.

Updated Computer Laboratories

Sr.No	Name of Computer Laboratory	Number of Computers	Location
1	Koyana	25	Post Graduate Computer Science Department- RESOLVE
2	Chandrabhaga	30	
3	Narmada	30	
4	Computer lab-1	40	Under Graduate Computer Science Department
5	Computer lab-2	40	
6	Electronic Science	25	
7	Statistics	21	
8	Physics	20	Department of Physics
9	B. J. Wadia Library Lab-I	29	B. J. Wadia Library
10	B. J. Wadia Library Lab-II	29	
11	Language Laboratory	21	Main Building
12	Animation Laboratory 1	23	Media Centre
13	Animation Laboratory 2	23	
14	Animation Laboratory 3	23	
15	Animation Laboratory 4	23	
16	Biotechnology	25	Department of Biotechnology
17	Environment Science	12	Department of Environment science
18	Electronic Science-UG	14	Department of Electronic Science
19	Electronic Science-PG	32	Department of Electronics -PG
20	Statistics	23	DST-FIST Facility
21	General	50	Academic Complex
	Total computer lab	558	

CCTV Details in Campus

SR. NO.	Department	DVR Make	DVR PORT	Camera Make	Dome	Bullet	Working Cameras	Under maintenance
1	Comp. Sci UG	Cplusplus	16 OLD	Cplusplus	8	8	0	16
2	Animation Dept	Hikvision	16HD	Hikvision	16	0	16	0
3	Jr. College	Hikvision	16 HD	Hikvision	42	12	64	0
4	Jr. College	Hikvision	8 HD	Hikvision	0	8	8	0
5	Bai Jerbai Wadia Library	Hikvision	16 HD	Hikvision	0	15	15	0
6	Bai Jerbai Wadia Library	Hikvision	16 HD	Hikvision	0	15	15	0
7	Amphi Theatre	Cplusplus	16 OLD	Cplusplus	6	4	0	10
8	MSc Electronics	Matrix	8 Old	Matrix	5	0	0	5
9	Main Building	Hikvision	16 HD	Hikvision	10	6	16	0
10	Main Building-First floor	Cplusplus	4 old	Cplusplus	0	4	4	0
11	RESOLVE building (Examination Section and IQAC)	Wbox	8 IP	Wbox	3	5	8	0
12	RESOLVE building	Cplusplus	4 Old	Cplusplus	0	4	1	3
13	MEDIA CENTER	Hikvision	32 NVR+8 NVR	Hikvision	15	25	40	0
Final Total					105	106	227	34

Wi-Fi Details Upgraded

Location and Number of Wi-fi Access points in the campus

Wi-fi Access Points for Media Center	8
Wi-fi Access Points for Academic Complex	8
Wi-fi in and around Main Building	7

Model	MAC ↕	Name ↕
● GWN7610	00:0B:82:FC:46:78	FC Amphitheater
● GWN7610	C0:74:AD:0A:38:6C	FC Office 3
● GWN7615	C0:74:AD:29:E1:A8	FC_Principal_Cabin
● GWN7615	C0:74:AD:3D:0B:C8	IQAC FC
● GWN7615	C0:74:AD:3D:0B:E8	Electronics HOD
● GWN7615	C0:74:AD:41:64:CC	FC Exam
● GWN7615	C0:74:AD:3A:9B:C4	Office1ap

Student Support and Progression

1. The College does not presently have an active Students' Council. However students actively participate as representatives on the following academic and administrative committees of the college.
2. IQAC - The IQAC committee of college includes two student representatives who participate in all the meetings of the committee and give their observations and suggestions pertaining to various topics discussed in the meetings. Student representatives are encouraged to give their views.
3. The committees constituted under Prevention of Sexual Harassment Committee as well as Anti Ragging Cell also include a student representative. This ensures a representation of the students in the process of handling such sensitive issues.
4. The Board of Studies of each subject includes one Alumni representative. This is an indirect representation of students in the process of framing and updating the syllabi.
5. The Social Outreach and Enabling Center and SAATHI Enabling Center (For differently abled students) have group of volunteers who coordinate activities/ programmes under SOEC and SAATHI Enabling Center.
6. The Gymkhana Managing Committee also has student representation.
7. Every year during the cultural week, college organises departmental festivals. These festivals include different co-curricular activities organised and carried out by students, held over a period of two days. The coordination and execution of these activities is entirely carried out by students. It provides them an opportunity to learn several skills

including people management, finance management, building social and environmental awareness (by following the zero-waste policy).

8. Campus to Corporate Programme- Carrier Facilitation Centre (CFC) had organized interactive session on 'Campus to Corporate' Programs for the various departments, conducted the workshop on corporate communication skill, how to crack the interview and CV writing in collaboration with Talerang, also to promote the entrepreneurship culture amongst the students we have conducted an event named as Entrepreneurship a New Horizon. On 20th April 2020, sectorial career webinar series program was arranged for the students, to make them aware about the career opportunities in the electronics industry post COVID pandemic era the Mr. B.S. Praveen, CEO and MD BAG Electronics, India was the resource person for the event he has discussed about the what are the opportunities available for the electronics post pandemic era and how the domain knowledge of electronics will help to come up with the innovative product and services and motivated the students for further career. He also discussed about the parameters which are to be considered during the campus to corporate transition and how to bridge the skill gaps between the industry and academia. Almost 300 students were present for the session from were present for the session.

Internal Quality Assurance System

Initiatives of IQAC towards planned Strategies

1. Revisions in credit structure for second- and third-year BA programme and third year of B.Sc. programmes. Skill Enhancement Courses (SEC) for IIIrd, IVth, Vth and VIth Semesters for all BA Programmes and Vth and VIth Semester of B.Sc. programmes.
2. All Extra Credit courses identified/ finalized and registration will be available through MASTERSOFT ERP with assigned teacher coordinator for each course.
3. Implementation of Mentoring for all students and for all academic programmes (Class wise).
4. Implementation of Outcome Based Education Model for all academic programmes.
5. Efforts to collaborate with Industries- KPIT, Pune on various aspects and providing consultancy services to KPIT, Pune.
6. Budgetary provision for Setting up of Incubation Center, Seed Money for Research, Green Initiatives and Audits, Registration Fees for teachers participating and presenting research papers in conferences/seminars, MoUs and Collaborations and for Social Outreach and Enabling Center and "SAATHI" for differently abled students.
7. Concrete steps towards establishment of "Incubation Center" with approval and budgetary provision from DES and submission of proposal for funding to the Department of Science and Technology under iTBI Scheme of DST.

Strategy Development and Deployment

1	Curriculum Design and Development	<ol style="list-style-type: none"> 1. Strengthening Board of Studies with inclusion of more experts and industry representations. 2. Comparing our curriculum with best colleges/institutes in India and abroad. 3. Skill enhancement Courses in the curriculum which will enhance experiential learning 4. Promotion of project based learning and field studies for undergraduate programmes 5. Mandatory internships for all post graduate programmes 6. Mandatory credits in Human Rights and Cyber Security 7. Industry representation in curriculum design with inclusion of industry relevant electives especially for post graduate programmes
2	Teaching-Learning	<ol style="list-style-type: none"> 1. Adherence to the Academic Calendar 2. Daily Record of teaching-learning activities 3. Practise Outcome Based Education with more emphasis on course outcome and programme specific outcomes. 4. Use of different pedagogies for teaching- models/charts/posters 5. Innovative teaching methods based on drama/ one act play to explain and understand concepts. Use of crating working models to understand basic concepts in science. 6. Use of ICT in teaching with special reference to use of e-resources. 7. Use of you tube videos created by our teachers 8. Promotion of online teaching through Microsoft Teams and evolve it as a teaching-learning model.
3	Learning Beyond the Curriculum	<ol style="list-style-type: none"> 1. Learning beyond the curriculum through curriculum enrichment value added courses for acquiring extra skill sets. 2. Enhancing learning through hands-on training for undergraduate and post graduate students. 3. Regular interactions with subject experts/ scientists from national/ International Institutes to enhance the knowledge base of teachers and students 4. Training by industry experts for technology upgradation and adding technical skills for students and teachers 5. Promote learning in transdisciplinary areas and add skill sets for overall development of students 6. Participation on seminars/ conferences/ competitions at national level to provide better exposure to our students

4	Examination and Evaluation	<ol style="list-style-type: none"> 1. Developing a robust examination system through use of ERP system 2. Developing an online examination module. 3. Online entry of marks and result processing to reduce on time taken to declare results 4. Equal weightage for internal and end semester examinations 5. Flexible methods for carrying out internal assessment. 6. A system for uploading multiple exam systems and facility to create multiple tests for one course. 7. Design the entire exam system which can be online for internal and end semester examinations 8. An online system for addressing examination grievances 9. A definite mechanism to stop malpractices in the examinations 10. Develop a monitoring and security system for online examinations.
5	Research and Innovation	<ol style="list-style-type: none"> 1. Enhancing research skills by imparting skill sets necessary for research to students and teachers. 2. Expert guidance/ interactions – with scientists for guidance on technology/research skill upgradation. 3. Policy for promotion of research, research methodology and plagiarism. 4. Policy for promotion of consultancy and specific steps for consultancy services. 5. Budgetary provision for seed money for research to promote research amongst teachers, provision for registration fees and membership of professional bodies to cater to research needs in specific subjects. 6. Creating additional spaces for research by enhancing research facilities. 7. Provide procedural and practical support to teachers for submitting research proposals to various funding agencies.
6	Entrepreneurship and Incubation	<ol style="list-style-type: none"> 1. Include Entrepreneurship component in post graduate curriculum. 2. Develop linkage with institutions working for promoting entrepreneurship. 3. Make concerted efforts for promoting and establishing incubation center. 4. Invite ideas leading to innovation through awareness programmes and competitions. 5. Identify team who would work towards establishing incubation center 6. Write proposals for funding for establishing incubation center. 7. Identify probable space for such kind of infrastructure/ laboratories.
7	Library	<ol style="list-style-type: none"> 1. Automation of Library and Library services 2. Make library user friendly. 3. Subscribe only reference books typically required for undergraduate and post graduate education 4. As far as possible purchase e-books 5. Subscribe e-journals and databases which may be needed for research in both faculties. 6. Make library remotely available to users 7. Set up browsing centres in the library for students

		8. Digitize old and rare manuscripts in the library and make it available to users.
8	ICT	<ol style="list-style-type: none"> 1. Enhance IT infrastructure in the campus and the departments. 2. Provisions for wi-fi enabled network 3. IT security with firewall 4. Policy for utilization of IT infrastructure in the college with reference to wi-fi, cyber security and create awareness of IT regulations. 5. Maintenance policy for IT infrastructure 6. Increase the number of internet ports in each building/ department 7. Improve communication infrastructure in the campus. 8. Add new computers especially for academic purposes and enhance student- computer ratio. 9. Set up computer laboratories specifically to conduct language classes, capacity building workshops and training for teaching-non teaching staff.
9	Physical Infrastructure	<ol style="list-style-type: none"> 1. Catering to consistent demand for additional infrastructure to carry out academic activities. 2. Separate infrastructure for B.Voc programmes 3. Creation for additional post graduate block for post graduate programmes 4. Creation of additional space for meetings and seminars 5. Reallocation of available spaces for academic activities
10	Industry-Interface	<ol style="list-style-type: none"> 1. Strengthen the industry interface for training and placements 2. Enter into collaboration charters with industries for placements 3. Make academic provisions for higher education (progression) for candidates already recruited by industries 4. Establish and utilize industry relations for setting up incubation center 5. Carry out pre-placement activities which will help students in getting better placement opportunities. 6. Implement electives which are industry oriented for post graduate programmes.
11	Resource Mobilization	<ol style="list-style-type: none"> 1. Submit proposals to funding agencies like UGC, DBT and other research funding agencies like DST, BRNS, ISRO etc., 2. Align areas of college development with thrust areas of funding agencies 3. Conduct activities mentioned in guidelines of funding agencies and create a model college 4. Ensure timely submissions of audited statements and reports as desired by the funding agencies.
11	Human Resource Development	<ol style="list-style-type: none"> 1. Train human resource in computer applications for data management 2. Soft skills to improve working relationships in the offices 3. Implement Code of Conduct for all stakeholders of the College
12	Green Initiatives	<ol style="list-style-type: none"> 1. Green Policy for implementing green initiatives 2. Make the campus single use plastic free 3. Promote culture of use of less paper and shift towards e-governance 4. e-communication through official e-mails and use one drive for sharing data 5. Rejuvenate botanical garden and work towards its restoration 6. Develop waste management system
13	ERP	<ol style="list-style-type: none"> 1. Implement an efficient, result oriented ERP system for the College

		<ol style="list-style-type: none"> 2. Customize the ERP with regard to student admissions and enrolment 3. Develop an online assessment system including mark entry and publish online results 4. Introduce checks and balances to ensure security of exam system 5. Customize ERP to collect and analyse student feedback on teaching and curriculum and report generation 6. Customize and utilize ERP system for e-governance
14	Policies and Procedures	<ol style="list-style-type: none"> 1. Write policies and procedures for all academic and administrative processes of the college.
15	Internal Quality Assurance System	<ol style="list-style-type: none"> 1. Propagate quality initiatives and enhance teaching-learning 2. Promote quality culture circles for establishing quality initiatives 3. Develop monitoring system for teaching-learning processes 4. Develop data management system for NIRF and NAAC assessments 5. Promote team work and sense of belonging amongst teaching and non teaching staff 6. Form committees necessary for promoting research and community network. 7. Design and develop Outcome Based Education model for the College
16	Social outreach and Enabling Center	<ol style="list-style-type: none"> 1. Identify institutes/ NGOs which will help students in learning community service and developing sensitivity towards social issues 2. Incentivize students participating in outreach activities. 3. Establish a separate center for differently abled students and make all possible efforts for their academic progression
17	Assessment and Accreditation by NAAC	<ol style="list-style-type: none"> 1. Consistently maintain 'A' Grade in all assessment and accreditation cycles 2. Strive for excellence in higher education
18	NIRF ranking	<ol style="list-style-type: none"> 1. Strive to maintain college ranking in top fifty 2. Implement strategies to improve on ranking parameters
17	Alumni	<ol style="list-style-type: none"> 1. Enhance alumni interactions 2. Establish Alumni Association as Company under section 8 of the Company Act 3. Invite suggestions and support from illustrious alumni for academic enhancements 4. Raise funds from alumni association for creating/ adding physical infrastructure 5. Strengthen Placement Cell of the College with more number of opportunities through alumni interaction 6. Develop a dedicated alumni portal

E-Governance Initiatives

Administration

1. The College has ERP system
2. All administrative processes, records, sharing of Administrative Circulars, Notices is carried out through emails and by using Digital Platforms.
3. Application and sanction of Leaves (Casual and Medical) is done through the ERP system.
4. Maintaining and monitoring of Student Data is done through the ERP system.

5. Sending messages to students regarding eligibility, payment of fees, filling of online exam forms is done through the ERP system.
6. Allocation of students, class-wise/ Division wise and subject-teacher allocation is done through ERP system.

Finance and Accounts

1. All payments are made through NEFT bank transfers.
2. PFMS is used for schemes under UGC and DBT
3. Debit cards are issues to Heads of Department for small transactions
4. Honorarium and remuneration of Experts/ Guest lectures etc., is transferred through NEFT on their individual bank accounts

Student Support and Progression

1. Admissions for all academic programmes are Online.
2. Merit lists are generated through ERP system
3. Payment of college fees and any other dues is through Payment Gateway on ERP system

Examination

1. Emphasis on online examination- One Concurrent Evaluation is conducted Online.
2. Student Assignments are carried out through ERP System.
3. Question Banks are uploaded on ERP system through Departmental ERP Logins.
4. ITLE- software used for conduction of examinations.
5. Mark entry including marking ABSENT students is done through ERP- ITLE
6. At Examination Administration level, different reports can be generated pertaining to analysis configuration of exams and result generation.
7. For security, Examination Administration can freeze or unfreeze marks entered, after following the standard process as per examination manual
8. Department wise exam reports/ results can be generated

Institutional Values and Best Practices

Two practices of participative management are as follows: I. Role of Teachers in all academic and administrative processes The College is committed to a culture of participative management. At every level, there is teacher's representation and active role in making and implementing policies which are related to academic and administrative functioning of the College. The Governance Structure of the College is as follows:

1. The Governing Body of the College (Autonomous college) and Governing Body of the parent organization- Deccan Education Society. The Governing Body (Autonomous College) has two teacher representatives as per UGC Guidelines for Autonomous Colleges.

Role:

- (a) Guide the college while fulfilling the objectives for which the college has been granted autonomous status.
- (b) Institute scholarships, fellowships, studentships, medals, prizes and certificates on the recommendations of the Academic Council
- (c) Approve new programmes of study leading to degrees and/or diplomas.
- (d) All recruitments of Teaching Faculty/Principal shall be made by the Governing Body/state government as applicable in accordance with the policies laid down by the UGC and State Government from time to time.
- (e) To approve annual

budget of the college before submitting the same at the UGC. (f) Perform such other functions and institute committees, as may be necessary and the proposals with or without modification of the Boards of Studies with regard to courses of study, academic regulations, curricula, syllabi and modifications thereof, instructional and evaluation arrangements, methods, procedures relevant thereto etc., provided that where the Academic Council differs on any proposal, it shall have the right to return the matter for reconsideration to the Board of Studies concerned or reject it, after giving reasons to do so. (b) Make regulations regarding the admission of students to different programmes of study in the college keeping in view the policy of the Government. (c) Make regulations for sports, extra-curricular activities, and proper maintenance and functioning of the playgrounds and hostels. (d) Recommend to the Governing Body proposals for institution of new programmes of study. (e) Recommend to the Governing Body institution of scholarships, studentships, fellowships, prizes and medals, and to frame regulations for the award of the same. (f) Advise the Governing Body on suggestions(s) pertaining to academic affairs made by it. (g) Perform such other functions as may be assigned by the Governing Body.

3. The Board of Studies All Teaching Staff Members are members of Board of Studies with representation from Alumni. Role: (a) Prepare syllabi for various courses keeping in view the objectives of the college, interest of the stakeholders and national requirement for consideration and approval of the Academic Council (b) Suggest methodologies for innovative teaching and evaluation techniques (c) Suggest panel of names to the Academic Council for appointment of examiners.

Dr. Samir Terdalkar
Coordinator, IQAC

Principal