Fergusson College (Autonomous), Pune

Plan of Action and achievements of IQAC (Year wise)

2017-2018

	Plan of Action	Achievements
1	Curriculum Development - Bench marking of Curricula	Major revisions in the curricula with benchmarks. Each curriculum has a skill component and industry interface.
2	Teaching-Learning	Use of ICT tools by most of the teacher's in the classrooms and laboratory. Project based learning for undergraduate courses in both Science as well as Arts streams.
3	Feedback on teaching - learning: (Scale 0 to 4)	The mechanism for feedback on teaching has now been well integrated with the ERP system. Feedback is taken for all programmes for each semester. The feedback are analyzed and results are communicated to teacher's. Corrective actions have been taken in case of non performing teacher's.
4	Skill Enhancement Programmes	Promotion of interdisciplinary learning through skill enhancement programmes like LINUX awareness, ICT and IoT, Basics of Data Analytics with R, Basics of machine Learning with R, Basic Statistics using R software for Life Sciences and Special lecture Series on IPR
5	Examination and Evaluation Reforms	Examinations / assessment methods have been reformed and more flexible methods of assessment have been introduced which are Learner centric.
6	Industry interface and career guidance	A separate Cell, "Career facilitation Center' has been established. Career summits, Sectorial Summits are regular feature of this Center. Panel discussions with Industry Experts and students are regularly organized to bridge the gap between academia and industry. This has enhanced internships, projects and placements.

7	Extension and Outreach	Extension and outreach activities are conducted through "Social outreach and Enabling Center" (SOEC). The College has developed linkages with 15 NGOs for which the students are working to carry out small research, surveys and present them in classrooms. Science teaching has been further promoted through "Science Education Initiative" (SEI).
8	Academic and Administrative Audit	Conducted every year for all departments /
9	Training of Teacher's at Centres of Higher Learning and Excellence	Teacher's are exposed to next level of training at Industries especially IT industries, HRDC Centres, IISER's and through special workshops organized by Department of Biotechnology, Government of India. This has enhanced their knowledge base.
10	New Programmes Introduced	a. M. Sc. Computer Applications b. Certificate Course in MEAN Stack Web Development c. Certificate Course in Intellectual Property

Year 2018-2019

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1	Curriculum Development - Bench marking of Curricula	Major revisions in the curricula with benchmarks. Each curriculum has a skill component and industry interface.
2	Teaching-Learning	Use of ICT tools by most of the teacher's in the classrooms and laboratory. Project based learning for undergraduate courses in both Science as well as Arts streams.
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8	Academic and Administrative Audit	Conducted every year for all departments / programmes
9	New Programmes Introduced	M.Sc Data Science
		Entrepreneurship Development (at Post Graduate level)
		Certificate Course in IPR
		Certificate Course in MEAN STACK Web development
		Certificate Course in English Writing

2019-2020

Sr.No.	Plan of action	Achievements
1	Diagnostic Test at entry level for undergraduate and post graduate programmes	- Diagnostic test has been implemented at entry level for all post graduate programmes. - The test was MCQ based and a bench mark of 40% or less was kept in identifying a slow and advanced learner.
2	Catering to diverse needs of advanced learners	- Skill enhancement courses/ programmes and activities were organized for advanced learners. - The Internal assessment provides flexibility in assessment. Diverse methods of assessment have been created by departments for advanced learners. - Project work for advanced learners and motivating and providing subjective guidance to such students for participating in various schemes and competitions. - Lectures/Interactive sessions on special topics like Astrobiology, Use of scientific toys for understanding the principles of science', How to write effective research paper', Into the History of Scientific Discoveries and Inventions, Realization of Hydrogen

		Economy with Electrochemical Energy Devices, Development of Animal Forms - formation and evolution of animal body forms. Using *Drosophila melanogaster*, *Xenopus laevis* and stem cells as key examples to explain various cellular signaling mechanisms which govern the formation of an organism from a single cell to a multicellular organism, Aging and Mitochondrial Biology, Role of pharmacognosy in drug development', Recent Techniques in Genetic Engineering, An overview of vaccine production process', Online Webinar on "Bug Bounty in CYBER SECURITY" and Introduction to scientific hobby: HAM radio.
3	Mapping of Course Outcomes and Programme Outcomes- Developing an OBE model for all academic programmes	• Extensive training of teachers in understanding and writing course outcomes was undertaken and teachers are now trained to write course outcomes. • The process of mapping and attainment has been designed and finalized and will be implemented in due course of time.
4	Documentation of innovative methods of Evaluation/assessment	• Documentation of innovative methods of evaluation/assessment has been done by departments.
5	Publications in SCOPUS/Web of Science/UGC CARE list journals	• Number of publications in SCOPUS/Web of Science/UGC CARE list journals of some departments is as follows: Botany=04, Environmental Science= 02 Geology=05, Physics=07 and Statistics=01
6	Promotion of Research	• Orientation programme/ presentation on new schemes -UGC SPARC programme, ISRO projects and UGC-STRIDE Scheme • Two research projects under UGC-STRIDE (Component-II) have been shortlisted. • Writing of policies for research, Plagiarism and Consultancy
7	Mentoring for all students	• The process/ mechanism of mentoring has been well established for all students and for all academic programmes
8	Skill based training programmes for students	• Skill based training programmes have been conducted through UGC-STRIDE programme and DBT - STAR Scheme. • Additional practicals for undergraduate science students and Hands on Training programmes/ workshops (Biotechnology-12, Chemsitry-07, Computer Science-04, Electronic Sdince-12, Geology-06, Microbiology-03, Physics-06, Statistics-04 and Zoology-04)

		• Other Skill Enhancement programmes: Introduction to Python: - 12 hrs, Introduction to Econometrics with R - 12 hrs, Special Insights into Econometrics-6 hrs. and LINUX OS -15 hrs.
9	Creating awareness regarding IPR	Following programmes has been conducted related to IPR- Writing policies with special reference to research and consultancy, Public Talk - National and International Status of IPR, Public Talk - GI(Geographical Indication: Importance and Necessity), Patenting Procedures and various forms of IPR for Life Science, IPR for Computer Science, Electronic Science and Fundamental Sciences, Forms of IPR in Arts and Humanities, Patenting Procedure and various forms of IPR for Chemical Sciences, Avenues and opportunities in Patinformatics, How an idea leads to US Patent :Inventors Perspective, Avenues and opportunities in IPR for Faculty and Career Avenues and opportunities in IPR for Students
10	Diversification of Outreach Programmes	• Science Education Initiative (SEI): Under the Ramanujan training program this year 55 students from the Pune Municipal Corporation schools were trained for the International Math Olympiad examination. Out of this, 40 students appeared for the exam. • Geography Teacher's Workshops on Introduction to Geology, Earth and Solar System, Evolution of the Earth and Topography and Landforms. The teachers also had a hands-on training on Maps and Toposheet reading and on minerals, rocks, fossils and rock thin sessions. Geography school teachers from 15 various schools in and around Pune city • Two-day workshop on 'Introduction to the Exciting World of Microbiology' for high school students, The workshop was conducted in the science laboratory of New English School, Ramanbaug Pune where the presence of skin microflora, effect of sanitizers on the growth of microbes, presence of microflora in the air, yogurt cultures, effect of natural anti-microbial agents like clove oil, turmeric were demonstrated. 60 high school students from class 9th from New English School, Ramanbaug, Pune actively participated in this workshop. • Two-day workshop on 'Understanding life-style diseases using Clinical biochemistry for high school teachers'. The workshop covered, Basic clinical biochemistry techniques like blood sugar estimation, techniques to identify pathogen using enzymology and qualitative tests for detection of carbohydrates and proteins. • Three-day programme on 'Popularization of Science'. Lectures by eminent scientists on various topics and hands-on session on the use of scientific toys made from simple daily use objects to demonstrate.

		• Robinhood Army Educational Visit • Disposable Bag Making • Beti Bachao Beti Padhao Event
11	Innovative Activity	Recording of books for visually challenged students of college studying in faculty of Arts. This is a platform where any one can record and book in audio form and make it available for the student. A "virtual Study Circle" has also been formed for enhancing teaching-learning activities.

2020-2021

		Plan of Action	Achievements
1		Revised Credit structure to enhance Skill Enhancement for all students in Arts and Science.	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		Definite mechanism for implementation of Extra Credits for all undergraduate programmes.	Integrated on College ERP System. All Extra Credit courses identified/ finalized and registration will be available through MASTERSOFT ERP with assigned teacher coordinator for each course.
3		Promote registrations for MOOCs and Policy for Credit Transfer	Promotion of MOOCs through dedicated Cell
4		Motivate and implement "Outcome Based Education Model" for all academic Programmes by using MASTERSOFT ERP module.	Implementation of Outcome Based Education Model for all academic programmes.
5		Collaborate with Industries for skill development and internships.	Efforts to collaborate with Industries-KPIT, Pune on various aspects and providing consultancy services to KPIT, Pune.
6		Prepare Collaboration Charter- with short term and long-term goals for professional skills of post graduate students and take initiative of providing consultancy services to industries.	
7		Revise Budget Heads in consultation with Finance Committee of DES for specific activities.	Budgetory 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.
8	Efforts for setting up Incubation Center.		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.
9	Strengthen Mentoring activities and make its presence felt in the campus and amongst the students.		Implementation of Mentoring for all students and for all academic programmes (Class wise).

2021-2022

		Plan of Action	Achievements
1		Outcome Based Education	1. Implemented for all academic programmes with a system of assessment of outcomes. Articulating Course Outcomes for all undergraduate and post graduate academic programmes as per revised Bloom's Taxonomy. 2. Implemented evaluation system based on OBE and measuring the attainment of Programme Outcomes, Programme Specific Outcome and Course Outcome for all post graduate academic programmes.
2		Mentoring	Strengthened Mentoring system by linking activities of mentoring with industry networks (NHRDN, Pune Chapter) and a platform for students to interact with industry personnel and discuss industry relevant issues for student career progression.
3		Transdisciplinary Learning	Workshops and training programmes have been conducted for –Research Capacity Building and workshops on integrating science stream with specific subjects in Arts.
4		Preparation for Assessment and Accreditation	For data management for NAAC IV SSR, every department has a D-IQAC coordinator and a team of teachers to help in data management
5		Research	Disbursement of Seed money after appropriate screening, procurement of plagiarism check

		software and establishment of Dr. P. C. Shejwalkar Center for Innovation and Entrepreneurship
6	Consultancy	Two consultancy projects completed with KPIT Pvt Ltd., Pune and teachers have undertaken consultancy projects in areas like hydrogeology and corporate training for IT industries.
7	Library Automation	Complete automation of library services have been achieved and ILMS system has been implemented.

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