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# THE OXFORD COLLEGE OF SCIENCE

Recognised by the Govt. of Karnataka,  
Permanently Affiliated to Bangalore University & Approved by AICTE, New Delhi  
Accredited by NAAC with 'A' Grade & International Accreditation Organization (IAO)  
Recognised by UGC under section 2(f) & 12(B)



**SELF STUDY REPORT - Cycle II  
2016 - 2017**

Submitted to  
**National Assessment and  
Accreditation Council (NAAC),  
Bangalore**



Estd. 1974

Children's Education Society ( Regd.)

## The Oxford College of Science

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Ref:TOCS/32/2016-17

Date:16.02.2017

To  
**The Director,**  
National Assessment and  
Accreditation Council (NAAC)  
P.O. Box no: 1075, Nagarbhavi,  
Bangalore- 560072,  
India.

**Sub: Uploading Self Study Report, 2016-17 to the college website for  
Second Cycle Accreditation – reg.**

Dear Sir,

With reference to the above subject, I wish to bring to your kind notice that The Oxford College of Science has been accredited with 'A' grade by NAAC in First cycle. Since then the college is working towards quality augmentation and is now geared up to go in for Second Cycle Accreditation.

In lieu of this, I am hereby uploading our SELF STUDY REPORT, 2016-17 in our official website depicting the key aspects of the functioning of our college.

I ardently look forward to hear from you for peer team inspection in our college.

Thanking you,

Yours sincerely,

  
**(Dr.R.Kavyashree).**  
Dr. R. KAVYASHREE  
Principal

The Oxford College of Science  
B' Main, Sector-IV, HSR Layout,  
Bangalore-560 102



## ***Acknowledgement***

*We are pleased to present this self study Report of The Oxford College of Science to NAAC. Since the time, we received “A” grade in the 1st cycle of accreditation, we have collectively put in our best efforts, facilitated by the Internal Quality Assurance Cell, to continuously progress in all aspects emphasized by the council.*

*We sincerely acknowledge NAAC for providing a clear road map for the quality enhancement process. We have made best of efforts to follow the road map, and hopeful that the success of our endeavors has come through clearly in this report.*

*I would like to thank our honorable Chairman Shri SNVL.Narasimharaju and the entire governing council members of the institution for their inspiring and tireless guidance and constant encouragement, throughout the period of the present work.*

*A committee comprising of 9 faculty members has been constituted to complete this report. The committee has prepared the report through group discussion with its members and regular interaction with principals and entire campus community. The report has been finalized with utmost sincerity, honesty and collective efforts of the faculty members. It was an opportunity for the entire institution to introspect our strength & weaknesses. The effort made by the institution to move ahead few steps in quality enhancement process has been a collective effort involving dedication, love, inspiration, and integrity.*

*I am also grateful to the Vice principals, Deans, Head of the Departments, teaching and non-teaching members of the College who spent countless hours in collecting and analyzing the data, compiling it, typing and refining the answers. Their dedicated efforts have led to the creation of this report. The Oxford College of Science looks forward to the visit of the Peer Team from NAAC, and believe their insightful observation would help the institute to achieve its intended future objectives better.*

***Principal***

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## A TRIBUTE TO OUR FOUNDER CHAIRMAN

*“The world steps aside for the man who knows where he is going.”*

Few men in history have worked with zealous aspirations and visualized excellence, perfection and variety as did the Founder of Children's Education Society, Bengaluru. Late Sri S. Narasa Raju was a true genius: a school teacher who went on to become an outstanding leader and great educationist.



In his four decades of service, The Oxford Group has seen an immense growth with the establishment of more than 28 Institutions from primary level to Doctoral level including Management, Hospitality, Medical, Para-medical, Science, Engineering, Dental streams. The institutions encompass more than 20,000 students and 2,500 teaching fraternity, in more than 85 academic streams imparting education to students from all over the country and abroad. The Oxford Group is a living testimony to his indomitable spirit, persistent dedication and an unwavering commitment to his goals.

In his lifetime, he was actively involved in building the best brand in education; rightly called "man of mission", 'a strict disciplinarian, a philanthropist and a role model'. Sri. S. Narasa Raju was born on 5th June 1941 in a farmer's family to Sri Sheshama Raju & Smt. Changamma in the village of Gopalapuram in Tiruthani district of Tamil Nadu. His ambition to continue higher education in Law made him leave his home at an early age. Once he came to Hosur, he joined & completed TCH and started his career as a teacher in Govt. School in Talli Village of Dharmapuri district, Tamil Nadu. After serving for more than 10 years as a school teacher, he migrated to Bengaluru in the year 1974. His first endeavour as an entrepreneur started with Nursery school in Kannada and English medium in J.P. Nagar, Bengaluru in a house cum school. Since then The Oxford group of Institutions has shown an astonishing growth in all the fields of education



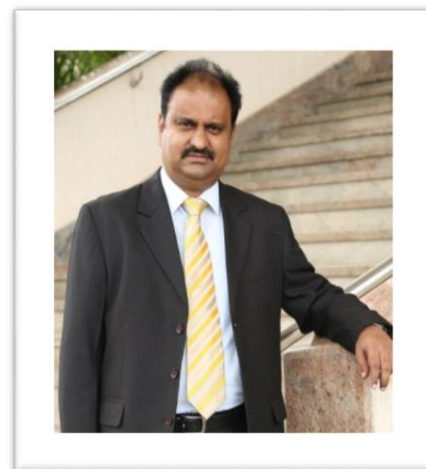
Prestigious awards and titles were conferred on him by many national organizations. In recognition of his stupendous service in the field of Education, the Tamil Nadu Government appointed him as the Chairman of Board of Trustees of Sri Subramanya Swami Temple, Tiruthani, Tamil Nadu. He was the recipient of awards like the Rajiv Gandhi National Integration Award for excellent service in the field of education by the Government of India, Best Educationist Award by Unaided Pvt. School Federation of India, Vidyasri Award by Swami Narayana Gurukula and Swami Vivekananda Yoga Centre, Kodanda Ramaiah Award by Andhra Saraswatha Sanga, Hosur. His philanthropic efforts resulted in the renovation of many temples and schools in Karnataka, Andhra Pradesh and Tamil Nadu to their former glory.

Sri S. Narasaraju left for his heavenly abode on May 16, 2016 striving for the purpose of education until his last breath. He left an indelible foot print on the Indian education scenario by starting The Oxford Group of Educational Institutions under the banner “Children’s Education Society”. His sincerity, hard work, discipline, devotion and concern towards students’ academic career has led The Oxford Educational Institutions to cosmic heights. We are truly proud and privileged to inherit this invaluable legacy

### **RENDEZVOUS WITH OUR CHAIRMAN**

*“Leaders become great not because of their power, but because of their ability to empower others.”*

The Chairman of The Oxford Educational Institutions, Sri S N V L Narasimha Raju has been a ceaseless source of inspiration and support for the faculty & students. He has served as the Executive Director of The Oxford Educational Institutions for more than a decade during which he has been instrumental in bringing about the technological development of the institution.



Sri Narasimha Raju is an MBA Graduate by degree and a versatile personality with excellent managerial skills and innovative ideologies. He has always rooted for a wholesome amalgamation of academics, administration, discipline and dedication. He has, always, had a good rapport with the teachers & created avant-garde facilities in all classrooms & laboratories. He is a firm believer in developing the total personality of the students to thereby increase the efficiency of the institutions in imparting education.

As per the Chairman’s mandate, our teaching-learning process is based on motivation and discipline with special emphasis is on the extra-curricular activities like sports, cultural programs, workshops, symposiums and seminars leading to holistic development of students.



## PREFACE

*The Oxford Educational Institutions under the aegis of Children's Education Society has transformed itself from humblest beginnings into one of the most vibrant and happening group, leaving its stronger peers way behind in most spheres of life be it academics, sports, art and culture, and discipline.*

*As they continue to develop and evolve, The Oxford Educational Institutions have their goal firmly focused on cultivating a sense of responsibility, patriotism, moral values and creativity in students. The Oxford College of science is proud to be a member of this prestigious group of Institutions.*

*We are highly indebted to NAAC Peer Team for exploring our systems and validating our claims in our first assessment for which we received A Grade in the year 2011. While the approval and appreciation of NAAC Peer team strengthened our resolve to touch greater heights, their fruitful suggestions have helped us to overcome the shortcomings. The IQAC established after the first accreditation has been instrumental in raising the bar of excellence and adopting and implementing diverse quality enhancing measures. We have tried our level best to implement the suggestions of the NAAC Peer Team*

*Being repeatedly ranked amongst the top ten Colleges in the state creates a pressure of its own kind. Blending the rigours and challenges of modern demands of education with the established reputation of more than 4 decades was never an easy proposition*

*The College harbors an excellent and dedicated faculty giving students the knowledge and learning experiences that help them develop an intellectual, professional, social and moral framework for approaching life No wonder, the College has been regularly producing University ranks holders in various disciplines*

*The Oxford College of Science has carved a niche for itself in the world of education. With a vision and mission that uphold everything that true education stands for, the College is committed to nurturing the intellectual growth of students even as it lays a strong emphasis on inculcating values and social concerns among them. The dynamic management that is ever sensitive to a rapidly-changing world is focused on training the competencies of the students to match global standards. Our state-of-the-art infrastructure and competent and committed staff provide a solid foundation for the students. Our quest for excellence gets the required boost from a transparent, democratic and participative management. With an innovative approach to all aspects of education, the Oxford College of Science is ever poised to ascend from peak to peak.*





*It's with open mind we present the self study report for evaluation which in turn help our institution in marching forward to cater the to meet the expectations of ever changing global scenario in the higher education system*



## ABOUT THE INSTITUTION

*India is known for its large pool of high calibre scientific fraternity. This fraternity has contributed not only to academic research & discovery but also to the Nation's advancement. With this as the aim, The Oxford College of Science nurtures the scientific temperament of its students. Located in a lush green vast campus at HSR Layout, it is considered the most preferred place for obtaining a Bachelors and Masters Degree. With a vibrant history of 4 decades, The Oxford Educational Institutions has come to be known for discipline & quality education in India. Today it is one of the finest institutions, providing hi-tech educational facilities to its students while retaining traditional values to mould young, talented individuals who can compete in the global arena.*

*The Oxford College of Science was started in the year 1994 with twelve students and five teachers. Presently the College caters to more than 3000 students. The institution owes this astounding progress to our dedicated Management and a committed teaching staff. Since its inception in 1994, it has covered many milestones of excellence. The College has adopted a learner centric approach to education which is strengthened by healthy research practices and under taking of science projects from different academic agencies. The Department of Information Technology and Biotechnology (IT/BT), Govt. of Karnataka has sanctioned a Biotechnology Finishing School at the College to prepare students for industry.*

*As an organization, The Oxford College of Science is fully responsive to the regional needs and aware of its contribution not only to University-level education but to the social and economic development of the region.*

*The Oxford College of Science has adopted a dynamic, creative and communicative approach in education, research and development. Since science covers a broad field of knowledge that deals with observed facts and the relationships among these facts, faculty aims at facilitating the students to explore and fathom the same. In order to create a breed of qualified, innovative and dynamic professionals for corporate sectors, service-industries, academics, research Institutions and self-employment, both technical and soft skills trainings are provided to the students. The partnership with various national and international universities and organizations also contributes in widening the horizon for the students in selecting their career option.*

## TIMELINE

1994  
1999

- Late Narasa Raju with the motto “VIDYA SARVATRA SHOBATHE” establishes The Oxford College of Science under Children’s Education Society, in J.P. Nagar Bengaluru affiliated to Bangalore University.
- Under Graduate Programs with *CZMb, PMCs PME, CZBt, FAD, EMCs, CZGt* combinations and post Graduate program in *Computer Applications, Microbiology & Biotechnology* are introduced.

- The College is ranked among top Colleges by *India Today*.
- First University Rank- IV, V for Department of *Biotechnology &*
- V Rank for Department of *Microbiology*.
- *The Oxford Society of Microbiology* is established and Magazine *JEEVASPARSHA* is released.
- Institution **records the highest intake** for Biotechnology in state
- Hosts Indian Science Congress Association’s International Conference

2000 –  
2004

2005-  
2007

- *The Biotechnology society* is established and the Department magazine *BIOVISTA* is released
- **The first** National conference- **JNANARJANA** emerges
- **Chief minister Shri Dharam Singh** visit the College
- **MAGNETICS**- Department fest of computer science is conducted
- First camp for **Eye Donation and Blood donation** is organized by Department of Microbiology
- Rated amongst **Top 10** for imparting best education in Biotechnology by *Biospectrum*

- First ever Science Exhibition– **Bioexhibit** by The Department of Microbiology
- New campus at HSR layout with state-of- the-art infrastructure
- PG courses in *Mathematics and Chemistry* introduced
- Department of Biotechnology initiates Plastic Waste Management
- Pejawar Mutt pontiff Sri Vishweshwara Theertha Swamiji and Sri Sri Ravishankar Guruji graces the campus
- First interdepartmental fest **Micromania** is started

2008-  
2009

- First National accreditation by **NAAC** with **A grade** (3.10 CGPA scale).
- First International Accreditation by **IAO, USA**
- Department of Biochemistry introduced Science exhibition Biochemical Constallation”
- **Bharath Ratna Shri. APJ Abdul Kalam** visits the campus
- **Justice Shri Santosh Hegde & Venkatachlaiah** Lokayukta, GOK visits the College
- International Memorandum of Understanding with University of Malta, Malta and Oklohama University, USA is signed
- Ministry of Food Processing, Govt of India. Sponsors the National Science Conference Jnanarjana in collaboration with **NIFTEM**

— 2010-2012

2013-2014

- The College receives **2(f) & 12B** status from **UGC, New Delhi**
- Green initiatives are begun—*Medicinal plants* are planted in the campus, Campus is made *plastic free zone*.
- **Hosts Faculty development Program in association with VGST, GOK inaugurated by Dr.V.Prakash, Former Director, CFTRI**
- Professor of Stockhlm University, Director of Neurosciences, Narayana Hrudayalaya DGP, Director, Jayadeva Institute of cardiology & Research, Vice chancellors of Bangalore University visits the campus

- The College is recognized as one of the centers for *Finishing Schools* in Karnataka
- **Dr.V.S Acharya**, Home Minister, GOK, **Shri Krishna Byre Gowda**, Minister for agriculture, GOK, Shir **M.N Vidyashankar**, Principal secretary to GOK, Dr.Ramachadra Gowda, Minister, GOK visits the campus
- **GENESIS**-Department fest of Department of Genetics started
- Intercollegiate cultural fest **OXFOIGNITE** is organized.
- Conceptualization of *Strategic meet*
- Departments of *Biotechnology & Microbiology* gets recognized as *Research centers* by **Bangalore University**
- College Joins the nation in *Swach Bharath Abhiyan*

— 2015-2016

2016-2017

- The Oxford *Annual sports meet* is initiated
- Departments of *Biochemistry and Computer Science* and Application get recognition as *Research centers* by Bangalore University
- Obtains grants from *Department of Biotechnology (DBT)*, Ministry of Science & Technology, New Delhi for Faculty Development Program
- Obtains grants from *Department of Science & Technology (DST)*, New Delhi under Women Scientist Scheme
- **Rated A+++ by Career 360**
- Constitution of *Entrepreneurship Development Cell and Eco-club*

## LIST OF ABBREVIATIONS

AIC	:	Atal Incubation Centre
AMC	:	Annual maintenance contract
API	:	Academic Performance Index
ATM	:	Apparel Technology Management
AV	:	Audio visual
BiSEP	:	Biotechnology Skill Enhancement Program
BOE	:	Board of Examiners
BOS	:	Board of studies
BTFS	:	Biotechnology Finishing school
CADD	:	Computer-aided drug design
CBCS	:	Choice Based Credit System
CCE	:	Continuous and Comprehensive Evaluation
CCTV	:	Closed-circuit television
CES	:	Children's Education Society
CGPA	:	Cumulative Grade Point Average
CISEE	:	Centre of Innovative Science & Engineering Education
DBT	:	Department of Biotechnology
DELNET	:	Developing Library Network
DRDO	:	Defense Research and Development Organization
DST-FIST	:	Department of Science & Technology - Fund for Improvement of S&T Infrastructure
ERP	:	Enterprise resource planning
FAD	:	Fashion and Apparel design
GATE	:	Graduate Aptitude Test in Engineering
GKVK	:	Gandhi Krishi Vignana Kendra
GoI	:	Government of India
GoK	:	Government of Karnataka
HR	:	Human Resource
IA	:	Internal assessment
IAO	:	International Accreditation Organization
ICCR	:	Indian Council for Cultural Relations
ICT	:	Information and communication Technology
IEEE	:	Institute of Electrical and Electronics Engineers
IICPT	:	Indian Institute of Crop Processing Technology
IIHR	:	Indian Institute of Horticultural Research
IIM	:	Indian Institutes of Management
IISc	:	Indian Institute of Science
IIT	:	Indian Institutes of Technology
INFLIBNET	:	Information and Library Network
IQAC	:	Internal Quality Assurance Cell
ISRO	:	Indian Space Research Organization
IT, BT and S&T	:	Department of Information Technology, Biotechnology and Science & Technology
KBITS	:	Karnataka Biotechnology and Information Technology Services
K-FIST	:	Karnataka Fund for Infrastructure Strengthening in Science and Technology



KMAT	:	Karnataka Management Aptitude Test
KPSC	:	Karnataka Public Service Commission
KSTA	:	Karnataka Science and Technology Academy
LAN	:	local area network
LCD	:	Liquid crystal display
LIC	:	Local Inquiry committee
LMS	:	Learning Management System
MCQ	:	Multiple Choice Questions
MIS	:	Management information system
MMD	:	Molecular Modeling and Dynamics
MOU	:	Memorandum of understanding
NAL	:	National Aerospace Laboratories
JNCASR	:	Jawaharlal Nehru Centre for Advanced Scientific Research
NCBS	:	National Centre for Biological Sciences
NCC	:	National Cadet Corps
NDRI	:	National Dairy Research Institute
NET	:	National Eligibility Test
NGO	:	Non-governmental organization
NIANP	:	National Institute of Animal Nutrition and Physiology
NIMHANS	:	National Institute of Mental Health & Neuro Sciences
NPTEL	:	National Programme on Technology Enhanced Learning
NSS	:	National Service Scheme
OBC	:	Other Backward Class
OOD	:	On official duty
OPAC	:	Online public access catalog
PBL	:	Problem based learning
SAS	:	Statistical Analysis System
SLET	:	State level Eligibility Test
SMYSR	:	Seed Money To Young Scientists for Research
SPICE	:	Science Projects in College Education
TA/DA	:	Travel allowance/ Dearness allowance
TBI	:	Technology Business Incubator
TOCS	:	The Oxford College of Science
UAS	:	University of Agricultural sciences
UGC	:	University Grants commission
UPSC	:	Union Public Service Commission
VGST	:	Vision Group on Science and Technology
WOS-A	:	Women Scientists Scheme -A

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## EXECUTIVE SUMMARY

The Oxford College of Science is a paragon of erudition and excellence among the Colleges under The Oxford Educational Institutions. Since its inception, the College has brick by brick, transformed itself into a center for academic eminence and achievement. Established in the year 1994, under the aegis of Children's Education Society founded by Vidyashree Late Sri. S Narasa Raju, The Oxford College of Science is accredited by NAAC with 'A' grade, International Accreditation Organization (IAO), approved by AICTE, New Delhi and has been recognized with 2(f) and 12(B) status by UGC. From the past 7 years, the College has found a pride of place among the top 5 Colleges in Karnataka and among top 20 in India by the leading surveys.

The Oxford College of Science has been successful in imparting top notch education due to its zealous & devoted faculty, who create a context for learning through their behaviors and active learning techniques that positively influences student behavior & learning.

Providing a competitive environment, the College has adopted a dynamic and holistic approach to education, research and development. Keeping abreast of modern developments, the institution is constantly restructuring itself and renovating its physical infrastructure as well as its research and education facilities. The Oxford College of Science proudly stands on a sprawling campus with a 6- storeyed building, in Sector IV HSR Layout of Bengaluru city, which is considered as the hub of IT-BT.

### Criteria I: Curricular Aspects

The Oxford College of Science is affiliated to Bangalore University and follows the curriculum designed by it. Being an exclusive science College, it has 12 Departments offering 2 UG courses with a wide range of subject combinations, 13 PG courses and 1 PG Diploma course of contemporary relevance.

Introduction of Choice Based Credit System for Undergraduate and Post Graduate programs by the Bangalore University has enhanced learning opportunities to match up with students' scholastic needs, aspirations and professional requirements, entrepreneurship and vocational training. It has bridged the gap between professional and liberal education facilitating capacity building of students enabling academic flexibility both at UG and PG level. The teaching-learning process in the College aims at achieving not only the professional & academic development of the students but also blooming of their overall personality.

**Progress made in last five years**

Key focus area	First cycle	Second cycle
Curriculum implementation	Semester scheme, Continuous progressive assessment (based on seminar and internal test)	CBCS, CGPA, Continuous comprehensive evaluation, indirect assessment 2 credits
ICT initiatives	40-50% classes with PPT, interactive boards.	80% of classes with PPT, video lectures, virtual classroom, e-campus, interactive board, App based teaching, NPTEL.
Add-on courses	-	CADD and MMD, SAS, Memory and pedagogical techniques, PHP and MySQL, software testing with selenium, embedded system, software course on Java.
Inter disciplinary subjects	All UG programs were inter disciplinary (triple major)	Inter-disciplinary papers introduced in PG programs too (open elective). Soft-core papers are introduced for both UG & PG
Supplementary Enrichment Programs	10	20
Student Attributes and Holistic Development	World AIDS Day, Awareness Programs	Workshop on Positive Mental Health, sensitizing Students on World AIDS Day, Youth Day, Communal Harmony Day, World Environmental Day, Awareness Programs, Meditation and Yoga sessions for well-being.
Introduction and use of quality materials	-	NPTEL, IIT Virtual Labs, E-Campus
Curriculum Feedback System	-	Online Curriculum feedback and Analysis
Relevance and appropriateness in catering to the needs	-	Finishing school, add-on Programs and workshops

**Criteria II: Teaching, Learning and Evaluation**

A systematic approach towards teaching is followed starting with the framing of academic calendar and course plans which are rigorously executed with various teaching methodologies to make the learning process simple and easy to comprehend. Bridge courses and certificate courses are strategies to bridge the gap of learning and strengthen the curriculum. While bright students are encouraged to go beyond the syllabus and explore their potential through participation in seminars, paper presentations and project work, slow

learners are identified and assisted by the concerned mentors formally and informally. Soft-skill training for career enhancement is given significant importance.

Experimental learning at Departmental level is achieved through industrial visits, problem based learning, projects, guest lectures and interaction with eminent personalities from industries and through outreach programs. State-of-the-art facilities like Wi-Fi connectivity, well equipped and spacious laboratories, interactive boards and AV (Audio-Visual) equipments are provided to facilitate teaching / learning through ICT. Currently, the College has 94 fulltime faculty of which 26 are with Ph.D.; 13 having M.Phil. Degrees and 17 having cleared NET/SLET examinations.

Selection process for the faculty is purely based on qualifications prescribed by the UGC/AICTE, experience, performance at technical interview and demonstration lecture. The academic and research environment fosters the professional development of the faculty. Continuous assessment of teachers' quality is through student feedback and annual self-appraisals. To upgrade the technical knowledge & practical skills of faculty, they are encouraged to attend external faculty development programs, refresher courses, seminars & workshops for which they are given appropriate allowances for travel and granted OODs. Assessment of students is done through periodic tests, seminars, assignments and final examination as per the University norms.

<b>Key focus area</b>	<b>First cycle</b>	<b>Second cycle</b>
Admission - Transparent, well-administered mechanism, complying with all the norms	Offline admissions Counselling by subject experts	Online applications are made available, counselling by subject experts, Admission Coordinator introduced.
The learner-centered education through appropriate methodologies	Problem based learning, case studies, industrial visits, conferences and symposiums and remedial classes.	Bridge course, orientation program, seminars, Journal club activities, group discussions, quiz, add-on programs, technical fests, Problem based learning, case studies, industrial visits, conferences and symposiums, online assessment, e-campus
Individual and collaborative learning	Seminar presentations, unit tests	Seminar presentations, unit tests, internships, peer teaching, in-house projects, group discussions, journal club etc.
Qualification of the faculty	Ph.D:13.5% M.Phil: 36% NET/SLET: 10.8%	Ph.D:35% M.Phil: 18.4% NET/SLET: 21% Projects: SPiCE: 6, UGC: 03, CISEE: 01, SMYSR: 02, WOS-A:01, K-FIST:01, DST-FIST: 01, BTFS:01

Recruitment procedures	Advertisements in news papers and websites, demo and Technical interview, Personal interview by the Recruitment committee.	Advertisements in news papers and websites, demo and Technical interview, Evaluation by students, Personal interview by the Recruitment committee. Industry experiences are considered while recruitment. PhD/NET/SLET qualifications preferred for faculty positions.
Recognition of teaching abilities	-	Best teacher award, D-Litt award, Resource persons for conferences and workshops, Key note speaker
Evaluative processes and reforms	CPA, marks and percentage, Feedbacks offline	Credit System and CGPA Online MCQ tests for subjects Formative, Summative assessments Feedback and analysis online
Feedback	Feedback from several stakeholders like alumni, parents, recruiters, guests offline	Feedback from several stakeholders like alumni, parents, recruiters, guests, online 360 degree feedback
Achieving Learning Outcomes	Based on results and placements, University distinction and ranks	Based on results and placements, University distinction and ranks (11 University ranks in 2016) Feedback from recruiters online Attendance monitoring Extracurricular and co-curricular activities

### Criteria III: Research, Consultancy and Extension

The Departments of Biotechnology, Microbiology, Biochemistry, Computer Science and Applications have been recognized as Research Centers by Bangalore University. Various research grants have been received by the College to carry out the project work, conduct seminars and workshops for students' & faculty development.

Key focus area	First cycle	Second cycle
Research Centre	-	Bangalore University recognized 4 Departments
Research collaborations	The Oxford College of Engineering, The Oxford Dental College, The Oxford College of Pharmacy	IISC, NIMHANS, NDRI, NAL, AZYMES, The Oxford College of Engineering, The Oxford Dental College, The Oxford

		College of Pharmacy and The Oxford Medical College. MOUs signed with many institutes and organizations
Publications	National Conference proceedings, journals, Publications with ISBN number	National Conference proceedings, journals, Publications with ISBN number, Resource persons in conferences and workshops,
Research and publications	Inhouse Projects -9 Publications - 21 Books -9 Seminars/Conferences -70 Organized - 5	Projects -15 Publications - 112 Books -21 Seminars/Conferences - 49 Organised - 6
Research Guide	6	10

Improvements are made based on peer team recommendation through publications, paper review and guidance to the students. Many faculty have presented papers in National and International seminars and conferences.

The College is actively involved in initiating collaborations with industries in the form of MOU's, industrial visits, workshops & training programs. The College's available expertise is advocated in the form of consultancy to sister institutions & charitable organizations as part of its social responsibility.

The extension activities include NSS, awareness programs, Blood / Eye donation camps etc. The institution endorses institution-neighborhood-community partnership and imbibing of good citizenship qualities & service mindset in students.

#### Criteria IV: Infrastructure and Learning Resources

The current infrastructure has been developed to cater to the modern requirements of students and campus community.

World-class ICT enabled classrooms, scientific laboratories and computer labs are designed with imported interiors and furnishings from well-known designers and fabricators. The campus hosts a well-equipped sports room for indoor & outdoor games, a canteen serving wholesome food at subsidized rates and a magnificent auditorium for all College events. An exclusive Research and Development facility has been set up to enable post graduate students, Research scholars and faculty to take up research activities. The library is stocked with latest editions of books, scientific journals and has an e-library facility. The support facilities available in the library are as follows:

- ✚ Automation of certain services for easy accessibility
- ✚ Reading room and individual cubicles for undisturbed reading.
- ✚ High speed Internet facility, computer access to students and faculty

- ✚ State of the art Library facility with OPAC, DELNET, INFLIBNET and IEEE
- ✚ Reprographic facility
- ✚ Uninterrupted power supply and backup facility
- ✚ Notice board for information display like circulars, paper clippings, job openings and important news
- ✚ Competitive examination books and journals

**Criteria V: Student Support and Progression**

Student progression reflects the progression of the entire institution. This is acutely evident in the consistent University ranks bagged by the students from the past 10 yrs & the exemplary results in the University exams with manifold distinctions. Our students have brought laurels to the institution by clearing competitive examinations and are well placed in their respective fields. The College also takes pride in stating that the students shine in cultural events, sports and inter College fests bringing fame and recognition to the institution. Student Welfare Committee, Alumni Association, Counseling cell and Cultural Committee address all the supplementary requirements of the students. In line with the holistic development of students, the College has introduced Add-on Programs catering to industry, research and academics to enhance the skill sets of students in order to make them employable. A functional Placement cell coordinates with industries for Internships/Projects/Training and Placement needs of the students.

The College is also growing in stature globally with students from countries as diverse as Cambodia, Nigeria, Kenya, Sri Lanka, Nepal, Bangladesh and Malaysia coming to pursue further education at Oxford which is an indicator of our mark on the global canvas.

Key focus area	First cycle	Second cycle
Career Guidance Cell, Placement and Training Cell	Pre-placement activities like mock interviews and communication skills	Pre-placement activities like grooming sessions, resume writing, industry etiquettes, mock interviews and communication skills, Certified Personality Development Programs, Career guidance from industry experts, overseas opportunities for higher studies, Entry to service coaching and online practice platform

**Criteria VI: Governance, Leadership & Management**

The vision and mission of The Oxford College of Science draw upon the motto of the parent organization that endorses the three-fold approach of excellence, variety, and perfection to education. The College emphasizes on holistic development of students and value based education, which is in line with the Vision 2020 document of Higher Education released by the Karnataka State Higher Education Council.



The College is governed by the policies and plans framed by the Managing Committee of Children's Education Society® (CES). The management holds strategic review meetings annually to ensure consistent application of quality standards across Institutions.

The core values that go into the making of good governance are participatory decision-making and an efficient and responsive structure underlying the management. At The Oxford College of Science, a Strategy meet is organized before the start of every academic year wherein Principal, all the Co-coordinators and faculty members review past year's targets & achievements and formulate strategies for the next academic year. Regular communications & meetings are held with all stakeholders to be acquainted of all the events in the College & to address grievances.

The students & faculty are groomed in leadership by organizing various academic & extracurricular events at intercollegiate level, participation in NSS, student council etc. The College is quality driven and every aspect of functioning from recruitment to delivery of education services is transparent and as per pre-designed standards. There are several welfare schemes in place for the teaching and non-teaching staff including financial support, sports facility, subsidized education for children etc.

An Internal Quality Assurance Cell (IQAC) has been established which is instrumental in institutionalizing the quality assurance process. The IQAC includes members from alumni, student council & external experts whose significant contributions have resulted in effective upgradation of academic & administration facilities in the College. An academic audit is conducted by Dean Academics every year to review academic provisions & take appropriate measures for improvement.

### **Criteria VII: Innovations and Best practices**

The Oxford College of Science has been a pioneer of innovation amongst the city Colleges by introduction of unique courses, activities for awareness programs, outreach practices & student support schemes. The College has been taking various initiatives on keeping its ecological footprint to the minimum to develop & maintain an eco-friendly campus since its inception. The students and faculty associated with the NSS unit have regular checks in place to maintain a clean & green campus.

The College has embraced the 3R's policy of Reduce, Reuse and Recycle. Conservation of energy & water resources is diligently taken up by every faculty & student. Presently, focus is on the use of renewable energy in the form of solar panels in the campus & reuse of water in labs and gardens.

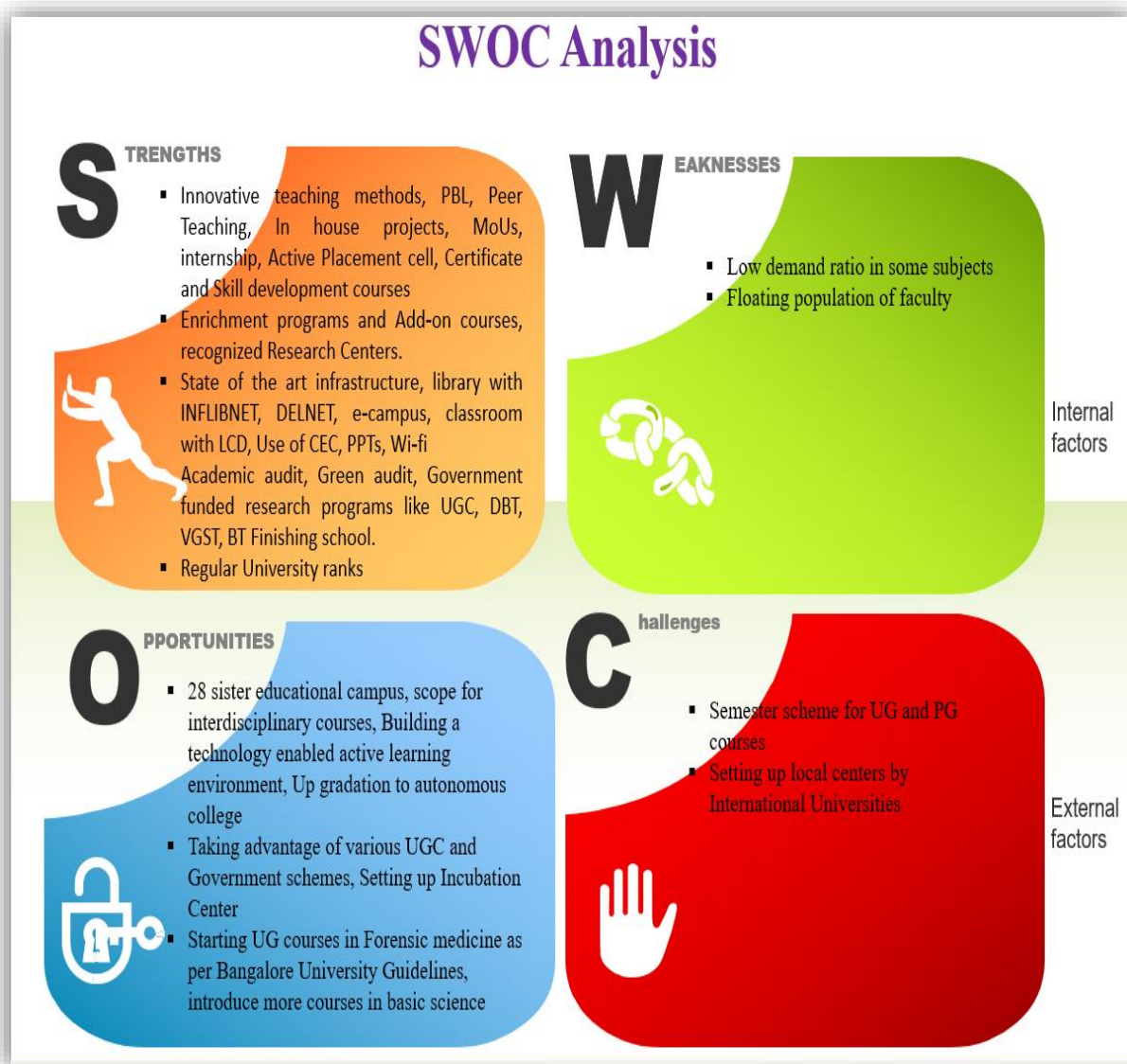
The College aims to reduce carbon emissions, pollution and contamination in the campus by conducting frequent awareness programs & clean-up drives. The College follows a unique culture of welcoming the guests through plant saplings instead of flower bouquets and distributes plants as token of appreciation to achievers.

The Oxford College of Science is committed to safe and responsible management & disposal of wastes generated in the campus. Known for its extensive & superior tutelage, a

blend of traditional blackboard teaching and ICT enabled teaching is at operation in the College.

Student-centered pedagogy includes orientation programs, bridge courses, add-on courses, enrichment programs and problem-based learning which has brought about a sea of change in the grooming, caliber & output of students. Recently, the College has introduced peer teaching, in which the postgraduate students takes classes for undergraduates on various soft core subjects. This has immensely helped them to learn the art of teaching and build confidence.

The major evidence of success of enriching the curriculum is that the placement rate has risen phenomenally in the last few years



## PROFILE OF THE COLLEGE

### 1. Name and Address of the College:

<b>Name:</b>	<b>The Oxford College of Science</b>	
<b>Address:</b>	#32, 17 <sup>th</sup> 'B' Main, Sector IV, HSR Layout, Bengaluru – 560 102. Ph: +91-80-30266301/302/351/391	
<b>City:</b> Bengaluru	<b>Pin:</b> 560102	<b>State:</b> Karnataka
<b>Website:</b>	www.theoxford.edu	

### 2. For communication: Office

Name	Tel with STD code	Fax	Email
Dr.R. Kavyashree, Principal	080-30266302	080-30266349	<a href="mailto:scienceprincipal@theoxford.edu">scienceprincipal@theoxford.edu</a>
Dr. Bharathi.S Vice Principal (Academics)	080-30266354	080-30266349	<a href="mailto:vpscience@theoxford.edu">vpscience@theoxford.edu</a>
Ms. Gayathri Sudhir Vice Principal (Administration)	080-30266309	080-30266349	<a href="mailto:iqacscience@theoxford.edu">iqacscience@theoxford.edu</a>
Dr. Bharathi.S Steering Committee Co-ordinator	080-30266354	080-30266349	<a href="mailto:sciencenaac@theoxford.edu">sciencenaac@theoxford.edu</a>

### Residence:

Name	Telephone with STD code	Mobile number
Dr.R.Kavyashree, Principal	-	9886023272
Dr.Bharathi.S Vice Principal (Academics)	-	9448542448
Ms.Gayathri Sudhir Vice Principal (Administration)	-	9243125478
Dr.Bharathi.S Steering Committee Co-ordinator	-	9448542448

### 3. Status of the Institution:

Affiliated College	✓
Constituent College	-

Any Other (Specify)	-
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**4. Type of Institution:**

a. By Gender

i.	For Men	-
ii.	For Women	-
iii.	Co-education	✓

b. By Shift

i.	Regular	✓
ii.	Day	-
iii.	Evening	-

**5. Is it a recognized minority institution?**

Yes	-
No	✓

If yes, specify the minority status (Religious/linguistic/ any other) and provide documentary evidence.

**6. Sources of Funding:**

Government	-
Grant in-aid	-
Self-financing	✓
Any other	-

**7 a. Date of establishment of the College:** 17/08/1994

**b. University to which the College is affiliated /or which governs the College (If it is a constituent College)** Bangalore University.

**c. Details of UGC recognition**

Under Section	Date, Month & Year (dd-mm-yyyy)	Remarks (If any)
2 (f)	13.01.2011	-
12 (B)	27.08.2013	-

Enclose the Certificate of recognition u/s 2 (f) and 12 (B) of the UGC Act

**d. Details of recognition/approval by statutory/regulatory bodies other than UGC (AICTE, NCTE, MCI, DCI, PCI, RCI etc.)**

Under Section/ Clause	Recognition/Approval details Institution/Department	Day, Month and Year (dd-mm-yyyy)	Validity	Remarks
AICTE	MCA	07.04.2016	2017	-

**8. Does the affiliating University Act provide for conferment of autonomy (as recognized by the UGC), on its affiliated Colleges?**

Yes  No

If yes, has the College applied for availing the autonomous status?

**9. Is the College recognized?**

a. by UGC as a College with Potential for Excellence (CPE)?

Yes  No

If yes, date of recognition: ..... (dd/mm/yyyy)

b. for its performance by any other governmental agency?

Yes  No

If yes, Name of the agency ..... and Date of recognition: ..... (dd/mm/yyyy)

**10. Location of the campus and area in sq.mts:**

Location *	Bengaluru Urban
Campus area in sq. mts.	8,094
Built up area in sq. mts.	30,002

(\* Urban, Semi-urban, Rural, Tribal, Hilly Area, Any others specify)

**11. Facilities available on the campus (Tick the available facility and provide numbers or other details at appropriate places) or in case the institute has an agreement with other agencies in using any of the listed facilities provide information on the facilities covered under the agreement.**

Auditorium/seminar complex with infrastructural facilities	<input checked="" type="checkbox"/>
Sports facilities	<input checked="" type="checkbox"/>
Play ground	<input checked="" type="checkbox"/>
Swimming pool	<input type="checkbox"/>
Gymnasium	<input checked="" type="checkbox"/>

<b>• Boys hostel</b>	Available
i.Number of hostels	01
ii.Number of inmates	55
iii.Facilities (mention available facilities)	Mess, Security, Drinking water, Wifi & UPS
<b>• Girls hostel</b>	Available
i.Number of hostels	01
ii.Number of inmates	83
iii.Facilities (mention available facilities)	Mess, Security, Drinking water, Wifi &

	UPS
• Working women's hostel	Not Available
Residential facilities for teaching and non-teaching staff (give numbers available – cadre wise)	Available
• Cafeteria	✓
Health centre -	✓
• First aid	-
• Inpatient	-
• Outpatient	✓
• Emergency care facility	✓
• Ambulance	✓
<b>Health Care Staff</b>	
Qualified Doctor	Full time      Part-time ✓
Qualified Nurse	Full time      Part-time ✓
Facilities like banking, post office, book shops	Book shop
Transport facilities to cater to the needs of students and staff	✓
• Animal house	Centralized setup available in other campus of The Oxford Educational Institutions
• Biological waste disposal	✓
• Generator or other facility for management/regulation of electricity and	✓
• Solid waste management facility	-
• Waste water management	-
• Water harvesting	✓

**12.Details of programs offered by the College (Give data for current academic year)**

SI. No	Program Level	Name of the Program/ Course	Duration	Entry Qualification	Medium of instruction	Sanctioned/ approved Student strength	No. of students admitted
1	Under graduate	P.M.Cs	3 Years	PUC or Equivalent or 12th Standard	English	120	31
2		P.M.E				30	17
3		EMCs				240	58
4		St.M.Cs				120	18
5		C.Z.Mb				120	32
6		Bc.Z.Mb				40	21
7		Bc.Gt.Mb				120	41

8		C.Z.Bt				240	45
9		C.Gt.Bt				240	22
10		Bc.Gt.Bt				120	87
11		FAD				60	22
12		BCA				200	197
13	Post graduate	Microbiology	2 years	B.Sc	English	60	51
14		Biotechnology				60	49
15		Biochemistry				60	38
16		Applied Genetics				30	12
17		Chemistry				20	38
18		Mathematics				30	15
19		Electronics				20	6
20		Computer Science				20	16
21		Statistics				20	10
22		Fashion & Apparel Design				20	-
23		Physics				20	18
24		MA English				20	1
25		MCA	3 years			180	-
	Integrated Programs	-	-	-	-	-	
	M.Phil						
	Ph. D	Biotechnology Biochemistry Microbiology Computer science				- 01 - -	01 01 Under process
	Certificate courses	CADD and MMD					16
		SAS and SPSS					07
		Memory skills and Pedagogical Techniques					

	UG Diploma						
	PG Diploma	Cellular & Molecular Diagnostics				25	25

**13. Does the College offer self-financed Programs?**

Yes  No

If yes, how many?

**14. New programs introduced in the College during the last five years if any?**

Yes	<input checked="" type="checkbox"/>	No	<input type="checkbox"/>	Number	04 (M. A English; PG Diploma; M. Sc Physics; Ph. D)
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**15. List the Departments: (respond if applicable only and do not list facilities like Library, Physical Education as Departments, unless they are also offering academic degree awarding programs. Similarly, do not list the Departments offering common compulsory subjects for all the programs like English, regional languages etc.)**

Faculty	Departments (eg. Physics, Botany, History)	UG	PG	Research
Science	Biotechnology	✓	✓	✓
	Microbiology	✓	✓	✓
	Genetics	✓	✓	-
	Biochemistry	✓	✓	✓
	Zoology	✓	-	-
	Chemistry	✓	✓	-
	Physics	✓	✓	-
	Electronic Science	✓	✓	-
	Mathematics	✓	✓	-
	Statistics	✓	✓	-
	Computer Science & Application	✓	✓	✓
	FAD	✓	✓	-
	English	-	✓	-

**16. Number of Programs offered under (Program means a degree course like BA, BSc, MA, M. Com...)**

a. Annual system



b. Semester system

c. Trimester system

**17. Number of Programs with**

a. Choice Based Credit System:

b. Inter/Multidisciplinary Approach

**18. Does the College offer UG and/or PG programs in Teacher Education?**

Yes

No

If yes,

a. Year of Introduction of the program(s)..... (dd/mm/yyyy) and number of batches that completed the program

b. NCTE recognition details (if applicable)  
Notification No.: ..... Date: ...(dd/mm/yyyy)  
Validity.....

c. Is the institution opting for assessment and accreditation of Teacher Education Program separately?

**19. Does the College offer UG or PG program in Physical Education?**

Yes  No

If yes,

a. Year of Introduction of the program(s)..... (dd/mm/yyyy) and number of batches that completed the program

b. NCTE recognition details (if applicable)  
Notification No.: ..... Date: (dd/mm/yyyy)  
Validity:.....

c. Is the institution opting for assessment and accreditation of Physical Education Program separately?

Yes No

**20. Number of teaching and non-teaching positions in the Institution**

Positions	Teaching faculty						Non-teaching staff	Technical staff		
	Professor		Associate Professor		Assistant Professor			*M	*	
	*M	*F	*M	*	*	*F	*			*
Sanctioned by the UGC / University / State Government <i>Recruit</i>										
<i>Yet to recruit</i>										
Sanctioned by the Management/ society or other authorized bodies	1	4	10	14	15	50	24	9	2	1
<i>Yet to recruit</i>										

**21. Qualifications of the teaching staff:**

Highest qualification	Professor		Associate Professor		Assistant Professor		Total
	Male	Female	Male	Female	Male	Female	
Permanent teachers							
D.Sc./D.Litt.	-	1	-	-	-	-	1
Ph.D.	1	4	7	5	1	8	26
M.Phil.	0	0	1	6	1	5	13
PG	0	0	1	3	14	37	55
Temporary teachers							
Ph.D.	-	-	-	-	-	-	-
M.Phil.	-	-	-	-	-	-	-
PG	-	-	-	-	-	-	-
Part-time teachers							
Ph.D.	1	1	-	-	-	1	3
M.Phil.	-	-	1	1	0	2	4
PG	-	-	-	-	1	3	4

**22. Number of Visiting Faculty /Guest Faculty engaged with the College.**

11

**23. Furnish the number of the students admitted to the College during the last four academic years.**

Categories	2012-13		2013-14		2014-15		2015-16		2016-17	
	Male	Femal	Male	Femal	Male	Fema	Male	Femal	Male	Fem
SC	16	15	25	8	16	10	29	25	60	36
ST	5	5	3	3	6	8	2	9	8	7
OBC	9	4	74	45	52	61	61	86	91	99
General	261	250	198	192	156	17	94	182	281	250
Total	<b>291</b>	<b>274</b>	<b>300</b>	<b>248</b>	<b>230</b>	<b>25</b>	<b>186</b>	<b>302</b>	<b>440</b>	<b>392</b>

**24. Details on student's enrolment in the College during the current academic year:**

Type of students	UG	PG	M.Phil	Ph.D	Total
Students from the same state where the College is located	337	247	-	02	584
Students from other states of India	150	96	-	-	246
Foreign Students	12	08	-	-	20

**25. Dropout rate in UG and PG (average of the last two batches)**

UG  PG

**26. Unit Cost of Education**

*(Unit cost = total annual recurring expenditure (actual) divided by total number of students enrolled)*

(a) including the salary component : 3,94,54,773

(b) excluding the salary component : 1,02.53,741

**27. Does the College offer any program/s in distance education mode (DEP)?**

Yes  No

If yes,

a) is it a registered centre for offering distance education programs of another University

Yes  No

b) Name of the University which has granted such registration.

c) Number of programs offered

d) Programs carry the recognition of the Distance Education Council.

Yes  No

**28. Provide Teacher-student ratio for each of the program/course offered**

Courses Offered	Ratio
B.Sc (FAD)	1:9
B.Sc	1:9
BCA	1:15
M.Sc	1:7
MCA	1:6
M.A	1:1
PG Diploma	1:5

**29. Is the College applying for**

Accreditation: Cycle 1  Cycle 2  Cycle 3  Cycle 4

Re-Assessment:

*(Cycle 1 refers to first accreditation and Cycle 2, Cycle 3 and Cycle 4 refers to re-accreditation)*

**30. Date of accreditation\* (applicable for Cycle 2, Cycle 3, Cycle 4 and re-assessment only)**

Cycle 1: 16/09/2011 (dd/mm/yyyy) Accreditation Outcome/Result Grade A (3.10)

Cycle 2: .....(dd/mm/yyyy) Accreditation Outcome/Result.....

Cycle 3: .....(dd/mm/yyyy) Accreditation Outcome/Result.....

**\* Kindly enclose copy of accreditation certificate(s) and peer team report(s) as an annexure.**

**31. Number of working days during the last academic year.**

**32. Number of teaching days during the last academic**

*(Teaching days means days on which lectures were engaged excluding the examination days)*

**33. Date of establishment of Internal Quality Assurance Cell (IQAC)**

01/07/2010 (dd/mm/yyyy)

**34. Details regarding submission of Annual Quality Assurance Reports (AQAR) to NAAC.**

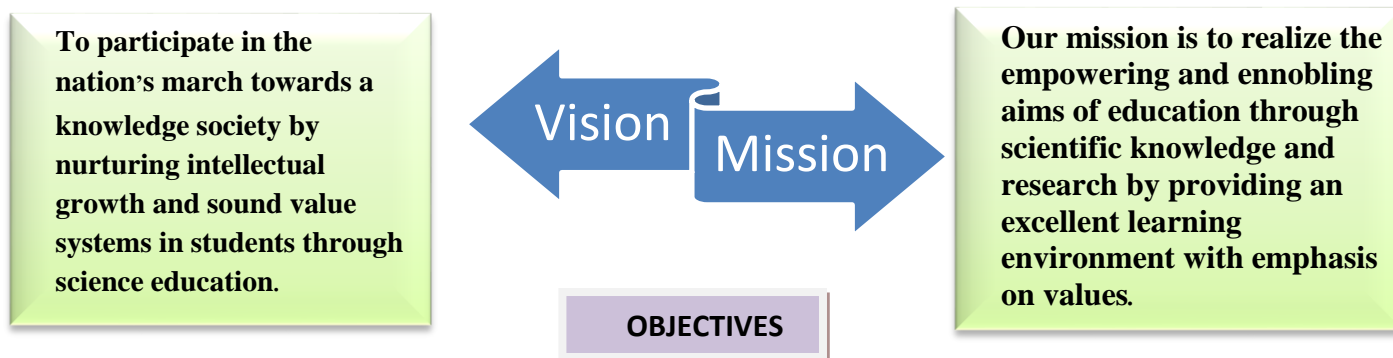
AQAR (i) 26/09/2012  
AQAR (ii) 23/09/2013  
AQAR (iii) 26/11/2014  
AQAR (iv) 19/02/2016

**35. Any other relevant data (not covered above) the College would like to include. (Do not include explanatory/descriptive information)**

## CRITERION I: CURRICULAR ASPECTS

### 1.1 Curriculum Planning and Implementation

#### 1.1.1 State the vision and mission of the institution, and how it is communicated to the students, teachers, staff and other stakeholders?



Our institution is committed to provide and pursue its motto of achieving excellence, variety and perfection by aligning to the nation's three-tiered approach to higher education through the realms of expansion, excellence, and equity for achieving rapid and inclusive growth.

**The following are the objectives that enlist our perspectives:**

- ✚ To foster creativity and to promote innovation in students
- ✚ To encourage team work and hone skills that aim in creating a successful individual
- ✚ To provide a platform for basic and advanced research in Science and Technology by bridging the gap between academics and industry
- ✚ To equip students with a variety of skills suitable for employment and for building a stronger task force
- ✚ To foster value based education through mentoring and exposing students to various modes of learning
- ✚ To encourage students from the lesser privileged background and to build a harmonious relationship amongst individuals signifying a diverse and unified body
- ✚ To train the students to the ever-changing technical scenario and make them understand the importance of being accustomed to sustainable and inclusive change
- ✚ To equip students to excel and contribute to the service of the nation and to attain an optimum personal fulfillment by leading a value based life

The Vision and Mission of the Institution is communicated to all the stakeholders through various means. The details are enlisted as given below:

- ✚ The Vision and Mission is clearly stated in the College website ([http://www.theoxford.edu/College\\_of\\_science](http://www.theoxford.edu/College_of_science)), College prospectus, College Magazines, College Almanac and advertisements, social media like Facebook, LinkedIn and Twitter

Reflection and review of the Vision and the Mission is reiterated at assemblies which is conducted weekly on Monday and Saturday, during the Alumni meet, reunions, parent-teacher meetings, conferences, workshops, intercollegiate fests, orientation program of new students, induction program for teaching and non-teaching staff, sports meet and at other events.

**1.1.2 How does the institution develop and deploy action plans for effective Implementation of the curriculum? Give details of the process and substantiate through specific example(s).**

Being an affiliated College, the College follows the curriculum designed by Bangalore University. To ensure an effective implementation of the curriculum and the objectives of the institution, the following steps are being followed:

- ✚ The College has setup a time table committee which meticulously designs time table in a way that provides a balance between academics and co-curricular and extracurricular activities.
- ✚ Faculty prepare subject wise lesson plans and provide soft copy to the students through campus management system.
- ✚ The Head of the Department ensures proper syllabus distribution and academic activities for every semester.
- ✚ Curriculum based programs such as guest lectures, seminar presentations, journal club, workshops and enrichment programs are conducted frequently.

A detailed planning and monitoring system is in place to ensure quality teaching learning and timely completion of syllabus. Plans are communicated to students through online platform.

- ✚ Remedial coaching is provided to slow learners
- ✚ Compulsory, alternate arrangements are made to engage classes in the absence of faculty.
- ✚ Intra and inter collegiate cultural competitions are held to develop leadership qualities among students.
- ✚ Suggestion box has been set up near the Principal's office to take suggestions from the students and alumni.
- ✚ Every faculty maintains a record of the topics covered during the week in the work done diary which in turn is given to the respective HODs and in turn is finally certified by the Principal during the month end review.
- ✚ The progress of the Departments is maintained through continuous reviews, tests and feedbacks collected by the Head of the Department and the Principal.
- ✚ Customized lab manuals, Question Banks and work books are prepared and issued to the students.
- ✚ Hands-On experimentation techniques are developed by inviting experts from different institutes and industries.
- ✚ Field trips, Industrial tours and visits which are a part of the curriculum are conducted especially for the Life Science Departments.

- ✚ Students are encouraged to visit different Research & Development centers and to carry out projects and internships.
- ✚ SC/ST book bank and additional books are issued to the SC/ST students along with regular quota.
- ✚ Students have extra provision to use the Departmental Library.

**1.1.3 What type of support (procedural and practical) do the teachers receive (from the University and/or institution) for effectively translating the curriculum and improving teaching practices?**

**University Support:**

- ✚ The University conducts orientation sessions for faculty when there is a change in syllabus
- ✚ Regular meetings are conducted with BOS members for syllabus review
- ✚ Timely notifications and circulars are sent to College and made available in the University website

**Institution Support:**

- ✚ The Institution facilitates internal training through Orientation, Workshops, Faculty Development Program (FDPs), Seminars and Symposiums
- ✚ Institution provides induction program for the newly recruited faculty
- ✚ Faculty members are given unconditional support from the institute to enhance the subject knowledge by providing OODs such that they can attend various workshops, conferences and seminars.

The faculty receive support through University and College orientation programs; state-of-the-art infrastructure and library resources like e-journals, INFLIBNET, IEEE and DELNET

- ✚ The state-of-the-art equipment and adequate laboratory facilities are made available in all the Departments so as to integrate teaching with technology. Every PG classroom is equipped with LCD facility. This enables the teachers to effectively deliver the lecture using multimedia presentations which would reinforce the concepts clearly to the students.
- ✚ Library is well equipped with services like INFLIBNET, DELNET, IEEE etc., and 25,376 volumes, 9524 titles, 94 journals, 24 desktops and internet facility for the teachers and students
- ✚ Faculty members are encouraged to obtain grants from various funding agencies. This has led to the procurement of projects from UGC, DST, Department of IT, BT and S&T, GoK creating a research culture in the College.

**1.1.4 Specify the initiatives taken up or contribution made by the institution for effective curriculum delivery and transaction on the Curriculum provided by the affiliating University or other statutory agency.**

- ✚ Dean-Academics is responsible for quality dissemination of the curriculum. An academic calendar is prepared at the beginning of the semester. Every faculty prepares lesson plan as per the syllabus allocated to them in the time table and the lesson plan



The institution makes constant efforts to ensure effective and efficient implementation of the curriculum

is communicated to the students. The faculty discuss curriculum beyond the syllabus as appropriate during the regular class hours.

- ✚ For students of allied sciences, Bridge Course and Orientations programs are conducted in the beginning phase of the semester.

- ✚ Interdisciplinary teaching is practiced.

- ✚ The faculty members interact with their counterparts in the University. Some of the faculty members are members of BOS
- ✚ Seminars, workshops, symposium and enrichment programs on latest topics are conducted to create an interface between academia and industry.
- ✚ To improve the efficiency of English Communication of students, the Institution has provided a well-equipped Language lab with WORDSWORTH Software and apps related to grammar.
- ✚ Laboratories are well equipped which fulfills the requirement of curriculum.
- ✚ The institution is using Epaathsala Learning Management Solution. Every faculty updates the session plan in the LMS subsequently.

### 1.1.5 How does the institution network and interact with beneficiaries such as industry, research bodies and the University in effective operationalisation of the curriculum?

#### Institution-Industry network:

- ✚ The institution believes in bridging the gap by providing real time insight into the industry. Accordingly, collaborations have been made with other Oxford Group Colleges and industries.

**Table 1: Institution-Industry network**

Sl. No.	Name of the Industry/Association	Nature of Existing Collaborations
1	Liveon Biolabs Pvt.Ltd., Bengaluru	Refining curriculum, Internship, Projects, Industrial Visits and Guest Lectures
2	Bhat Biotech India (P) Ltd., Bengaluru	
3	Bioplus Ltd., Bengaluru	Internship, Projects, Industrial Visits
4	GeneLife Biologics LLP, Bengaluru	Internship
5	Xcyton Diagnostics (P) Ltd., Bengaluru	Internship, Industrial Visits and Guest Lectures
6	Stelis Biopharma, Bengaluru	Refining curriculum
7	Stelixir Biotech Pvt. Ltd., Bengaluru	Internship, Projects, Industrial Visits and Guest Lectures
8	Optimus Pharma Consulting, Bengaluru	
9	Sangenomics Research Lab, Bengaluru	
10	Avestagen Ltd., Bengaluru	
11	Raghavendra Biotech, Bengaluru	
12	Probiosys, Bengaluru	
13	Biozeen, Bengaluru	

14	Anthem Biosciences Pvt. Ltd, Bengaluru	
15	Chromous Biotech Pvt. Ltd., Bengaluru	
16	Biocon Ltd., Bengaluru	
17	Thermo Fisher Scientific, Bengaluru	
18	Lab Links Biotech Pvt.Ltd., Bengaluru	
19	Genotypic Technologies, Bengaluru	
20	Natural Remedies, Bengaluru	
21	Jubilant Life Sciences Pvt. Ltd., Bengaluru	
22	Novozymes	
23	The Oxford Dental College &The Oxford Medical College	

Additionally, UG students are encouraged to carry out in-house research project beyond curriculum in association with industry or institute.

**Interaction with University representatives:**

- ✚ Every year, two governing council meetings are conducted with University nominees/ representatives.
- ✚ Interaction with Local Inquiry Committee which includes University representative takes place every year and their recommendations and suggestions are implemented.

**Interaction related to research activities:**

- ✚ The College is conferred with the Research Center Status for Microbiology, Biotechnology, Computer Science and Biochemistry Departments which encourages collaborative research with the other Departments as well as with the University. In addition, collaborative research is also carried out in collaboration with other research institutes such as IISc.

**1.1.6 What are the contributions of the institution and/or its staff members to the development of the curriculum by the University? (number of staff members/Departments represented on the Board of Studies, student feedback, teacher feedback, stakeholder feedback provided, specific suggestions etc.)**

**Table 2: Contribution of faculty members in curricular development**

Sl.No.	Name of the faculty	Contribution
1	Dr. Kavyashree R.	BOS of BTFS.
2	Dr. Bharathi S.	BOE, Chairperson 2015 BOS member Contributed towards upgradation of UG microbiology syllabus to CBCS. BOS of St. Josephs College,
3	Ms. Gayathri Sudhir	Syllabus revision committee member in Electronics to CBCS BOS member of Autonomous Colleges
4	Dr. Elsamma Thomas	Member Faculty of Science BU, Former Syndicate member, Local Inquiry Committee member, Core committee member,

		member of Governing council, BOE member of Bangalore University. BOE member of Christ University
5	Ms. Shantala S.	BOS in physics, Member of syllabus revision committee.
6	Dr. Sangita Roy	BOS in Biochemistry,
7	Dr. Vedamurthy AB	BOS in Biotechnology
8.	Dr. Sharada Ajit	BOS in English, Member of Text book Revision Committee.

A total of 26 faculties have been involved as BOE and BOS members of various Universities/Institutions. Details are available in annexure 1.1.6

**1.1.7 Does the institution develop curriculum for any of the courses offered (other than those under the purview of the affiliating University) by it? If 'yes', give details on the process ('Needs Assessment', design, development and planning) and the courses for which the curriculum has been developed.**

The College follows the curriculum designed by the Bangalore University. In addition, the following diploma and certificate courses are offered:

**Table 3: Details of the curriculum develop for certificate course**

Sl. No.	Department	Course	Analysis
1	Biotechnology	PG Diploma	<b>Cellular and Molecular Diagnostics</b> This course is not offered by any institution. However, the recent emergence of molecular and immunodiagnostic sector has created a tremendous need for human resource skill requirement in the diagnostic specialization
2			<b>Bio-therapeutics</b> A need assessment was conducted and it was noted as one of the fastest growing industrial sectors. In order to bridge the skill gap between academia and industry the College has proposed the second domain as Bio therapeutics.
3			<b>Bio-energy and Environmental Sciences</b> There is an increased demand for a large number of entrepreneurs and skilled personnel in the field and which in turn will generate innumerable opportunities and bio-entrepreneurship in sustainable energy sector.
4	Co-Curricular	<b>B.Sc. &amp; BCA</b>	Syllabus has been framed for 12 different co-curricular activities pertaining to UG CBCS syllabus by the respective program coordinators.

Please refer to Question 1.2.1 for a complete list of other certificate courses.

The following criteria are used for assessments of needs:

- ✚ Interaction with industry to evaluate the needs
- ✚ Recommendation of Alumni and the present students
- ✚ The support of the industry experts, research organizations and the subject experts from the College are taken in the design and development of the course within the Institution

### **1.1.8 How does institution analyze/ensure that the stated objectives of curriculum are achieved in the course of implementation?**

The Institution ensures the implementation of the stated objectives of curriculum through IQAC.

- ✚ Frequent group discussions, journal discussions are arranged to analyze the understanding level of the students
- ✚ Student performance is governed through class tests and internal exams including assignment, presentation for internal evaluation
- ✚ Review of examination results and conduction of remedial sessions for slow learners
- ✚ Attendance regularity is monitored for every student
- ✚ Students are encouraged to conduct research
- ✚ Students' feedback is collected and analysed
- ✚ Extracurricular and co-curricular activities like project works, surveys, study tours, industrial visits etc., develop research attitude
- ✚ Parent-teacher meetings are organized to update the parents with the welfare of the students and to seek their cooperation in the process

Apart from the academic aspects the College gives equal importance to:

- ✚ Moral and value based education through NSS
- ✚ Employability of learners
- ✚ Developing scientific temperament
- ✚ Fostering cultural diversity
- ✚ Developing national integrity and patriotism
- ✚ Connecting knowledge to life activities
- ✚ Making education relevant to the present and future needs
- ✚ Study tours and industrial visits to get a glimpse of work environment

## **1.2 Academic Flexibility**

### **1.2.1 Specifying the goals and objectives give details of the certificate/diploma/ skill development courses etc., offered by the institution.**

As the demand and scope for professionally trained students have increased, to bridge the gap between academia and industry, the Institution offers various certificate programs & skill oriented Add-on courses. These are tailor-made for industries and are offered in

collaboration with industry experts for a period of few weeks or months which makes the students ready for the industry. Following is a list of courses offered by the institution:

**Table 4: List of certificate courses**

Sl. No.	Department	Course	Remarks
1	Biotechnology	PG Diploma in Cellular & Molecular Diagnostics	This course is not offered by any institution. However, the recent emergence of molecular and immunodiagnostic sector has created a tremendous need for human resource skill requirement in the diagnostic specialization
2	Biotechnology/ Microbiology	Add-on course in CADD & MMD (Computer aided drug designing and Molecular modeling and Dynamics)	In collaboration with RASA Life Science Informatics, Pune, this course is offered to the students.
3	Statistics	Add-on course in SAS (Statistical Analysis System)	Service provider: INQRA (Institute of Qualified Researchers and Analysts)
4	Physics	Add-on course on Memory and pedagogical technique	Provided by Mindsmart Learning Technologies
5	Computer Science	Certificate course in PHP, MySQL and Selenium	In collaboration with MIND Q SYSTEM
6	Computer Science	Certificate course in Java	In collaboration with IIT Mumbai Virtual Lab

**1.2.2 Does the institution offer programs that facilitate twinning /dual degree? If 'yes', give details.**

Since the institution follows the Curriculum of Bangalore University, it does not offer dual degree.

**1.2.3 Give details on the various institutional provisions with reference to academic flexibility and how it has been helpful to students in terms of skills development, academic mobility, progression to higher studies and improved potential for Employability**

The University has introduced Choice Based Credit System (CBCS) from the academic year 2014-2015 for UG and PG Programs, which gives flexibility to the student to choose an optional elective paper of one's interest belonging to other disciplines.

**The general features of the Credit Based Semester Scheme are:**

- ✚ The relative importance of subjects of study is quantified in terms of credits.
- ✚ The subjects of study include foundation, core and skill development courses
- ✚ The program permits horizontal mobility in course selections.

The College offers 2 UG programs with 12 different combinations, 3 PG programs offering 13 different subjects for students to choose from and 1 PG Diploma program in Cellular and Molecular Diagnostics with the provisions of an excellent infrastructure which is a unique feature among private Colleges. The College also offers certificate courses, which aim at value addition to the existing courses, thus helping students gain an upper hand in procuring jobs.

Please refer to annexure 1.2.3 for details.

**1.2.4 Does the institution offer self-financed programs? If 'yes', list them and indicate how they differ from other programs, with reference to admission, curriculum, fee structure, teacher qualification, salary etc.**

Yes. All the courses offered in the College are self-financed courses. Please refer to annexure 1.2.3 for more details.

**1.2.5 Does the College provide additional skill oriented programs, relevant to regional and global employment markets? If 'yes' provide details of such program and the beneficiaries.**

The institution has a placement cell which organizes soft skill training program through external agencies and pre-placement activity for the final year students which can enhance their ability to face the interview. The College also conducts personality development program as a part of co-curricular activity. The students can also make use of the English lab that is furnished with WORDSWORTH software which can groom them for regional and global market needs. Apart from this the institution offer a course on 'How to Improve Memory Skills', in association with Mind Smart Learning Technologies.

An online platform is also available to the students to practice aptitude tests for various competitive examinations.

**1.2.6 Does the University provide for the flexibility of combining the conventional face-to-face and Distance Mode of Education for students to choose the courses/combination of their choice" If 'yes', how does the institution take advantage of such provision for the benefit of students?**

There is no such provision presently in place.

### 1.3 Curriculum Enrichment

#### 1.3.1 Describe the efforts made by the institution to supplement the University's Curriculum to ensure that the academic programs and Institution's goals and objectives are integrated?

In order to facilitate the integration of academic programs with the institution's goals and objectives, the following novel strategies are adopted:

**Table 5: Institutional strategies**

Sl. No.	Strategy	Description
1	PBL (Problem Based Learning)	In order to inculcate innovative thinking, team building and problem solving capacity, current practical problems are put forth to students and they are required to bring in solutions.
2	Virtual Lab	Learning Management System development, tools for teaching learning including video lecture, web resources, animated demonstration and self evaluation
3	FOSS (Free Open Source Learning)	FOSS training is provided through activities and experimentation
4	English Lab	English lab is set up with software like WORDSWORTH
5	SPSS	SPSS training is organized for PG students
6	Journal Club	PG students discuss about research articles
7	Field tour/Internship	Interact with industries and gain practical knowledge
8	Science meet and conference	Conferences like Jnanarjana, Magnetics, Current Trends In Computer Science are organized
9	Add-on programs	List of add-on programs are available in Annexure 1.3.1
10	Science competition and exhibition	Students may self evaluate their knowledge and identify improvement areas
11	Peer teaching	Post graduate students are encouraged to teach undergraduate students
12	In-house projects, internships, workshops	Various such programs are conducted throughout the year
13	Fashion shows	This is a conducive platform for budding designers and aspiring models

Sample List of PBL programs are given below. The remaining data is in annexure 1.3.1

**Table 6: List of PBL programs**

Sl. No	Title of the PBL programs
1	Chimeric Antibody and its application

2	Snake bite and Neural Progression
3	Application of Stem cells in the treatment of leukemia
4	Dental replacement by stem cell
5	Clinical Application of stem cells therapy in Parkinson's disease
6	How Adult stem cell can be used for skin cell repair and regeneration
7	Osteoporosis in young age: detection and prevention
8	Hallucination-schizophrenia
9	Cursing stroke by using stem cells
10	Missing Teeth

The College makes it mandatory for every Department to conduct one Guest Lecutre, Industry visit, PBL, Enrichment program, Journal club and Fest every Semester. List of activities are added as annexure 1.3.1

**1.3.2 What are the efforts made by the institution to enrich and organize the curriculum to enhance the experiences of the students so as to cope with the needs of the dynamic Employment market?**

The Institution has organized various programs to prepare the students for the current Global Market requirements. The placement cell of the Institution conducts the training programs such as:

- ✚ Soft Skill and Personality development, training on technical skill development

The institution makes constant effort to prepare the students for dynamic employment market. Based on industry feedback, new add-on programs are also introduced to improve employability of the students; Industry ready graduates through BTFS

- ✚ Training on Communication Skills with state of-the-art English Lab facility which has WORDSWORTH Software and Grammar apps, Training on Quantitative Aptitude and Entrepreneurs Skills

- ✚ Workshops by the students and for the students.

- ✚ Industry personnel and student interaction is organized periodically for career prospects and opportunity available in their field.

- ✚ The Institution has been recognized as one of the premiere institute to set up Biotechnology Finishing School Program conferred by the Department of IT, BT and S & T, GoK, Under this program the College offers a PG diploma program in CMD with the aim to make students industry ready by offering hands on experience on the latest trends in cutting edge technology.

**1.3.3 Enumerate the efforts made by the institution to integrate the cross cutting issues such as Gender, Climate Change, Environmental Education, Human Rights, ICT etc., into the curriculum?**

Gender Sensitization and human rights: The University in its semester scheme as well as in the recent CBCS scheme has included Human Right studies, Environmental studies, Social diversity and Culture as a mandatory interdisciplinary subject for students to develop social



concern and empathy. International women's day is observed every year to empower women and ensure their safety by arranging various programs

**Table 7: Workshops conducted by Women Empowerment cell of the College**

Year	Resource person	Topic
2012	Dr. Sandya, Lecturer, National College, Bengaluru	Role of Women in society
2013	Abhimanyu, Academy of martial arts and fitness, H.S.R. layout	Martial art demonstration
2014	Debate and poem competition	Is women safe in India? and My Mother
2015	Ms. Fathima Khadhir, Founder, Evolve ED	How to create a happy and fulfilling environment at home and office?
2016	Chef Sathyabhama of The Oxford College of Hotel Management	Healthy cookery show on "We are what we eat"

**Lectures organized**

- ✚ A guest lecture on the topic- "**Youth are the pillars of the future**" in association with NIMHANS was organized to make students aware of their moral and social responsibilities.
- ✚ Special lectures on **mental health** are organized to ensure a sound, healthy mental thought process and cognition.
- ✚ The College in association with The Oxford College of Law organizes **regular sessions and Moot court** so as to make students aware of their fundamental rights and responsibilities as citizens of the Society.

**Climate change issues:** The following initiatives have been implemented

- ✚ Eco friendly campus with no plastic zone
- ✚ Awareness program on disadvantages of plastic through Mimes, Street Plays and cultural programs, Paperless communication, Planting medicinal plants
- ✚ Wet waste and dry waste is segregated at source using different dustbins

**Table 8: Observation of important days in the College**

Year	Day	Topic	Date
2011	Cancer Awareness Day	Cervical Cancer and role of HPV	23 <sup>rd</sup> Feb
2012	World environment Day	Environmental concern and waste management	5 <sup>th</sup> June
	International Ozone Day	Ozone depletion and its effect	16 <sup>th</sup> Sep
2013	World environment Day	Environmental concern and waste management	5 <sup>th</sup> June
	International Ozone Day	Ozone depletion and its effect	16 <sup>th</sup> Sep
	Youth Social responsibility and duties	Take responsibility: don't avoid it	14 <sup>th</sup> Oct
	Water conservation and self dependence	Water conservation	14 <sup>th</sup> Mar
	Cancer Awareness Day	General Cancer Awareness	13 <sup>th</sup> Feb
2014	International Ozone Day	Ozone depletion and its effect	16 <sup>th</sup> Sep

	Youth Social responsibility and duties	Roles and responsibilities of youth	14 <sup>th</sup> Oct
	World Mosquito Day	Awareness of mosquito born diseases	20 <sup>th</sup> Aug
2015	International Ozone Day	Ozone depletion and its effect	16 <sup>th</sup> Sep
2016	World Health Day	Awareness on Diabetes	7 <sup>th</sup> April
	Hepatitis Awareness Day	Awareness on Hepatitis	30 <sup>th</sup> Aug
	Water Day	Water harvesting	4 <sup>th</sup> Oct
		Waste management	4 <sup>th</sup> Oct
	World Rabies Day	Dr.N.LGangadhar, IVRI	26 <sup>th</sup> Sept
World Aids Day	Dr.GiridharaUpadhyaya, KIMS	1 <sup>st</sup> Dec	

**ICT:** Adequate infrastructure is provided such as computer with internet facility, communication to parents about ward's progression using SMART CAMPUS-PUPILPOD, library with INFLIBNET, DELNET etc.

**1.3.4 What are the various value-added courses/enrichment programs offered to ensure holistic development of students?**

- ✚ Moral and ethical values are imprint in students through the programs and activities organized by NCC and NSS wing of the College which provide a moral foundation and patriotism for students to channelize their energy towards meaningful causes.
- ✚ The Physical Education Department trains the students not only in games but to build a sportive, positive attitude and good physique.
- ✚ The Woman Empowerment cell conducts regular guest lectures and workshops which empowers young women to take up the life challenges.
- ✚ Zero tolerance policy towards ragging and sexual harassment are in place.
- ✚ Humanity and diversity are brought together in students by celebrating Youth Day.
- ✚ Students are taken to schools for differently-abled like Samarthanam to inculcate community based services.

The Institution offers 12 Co-curricular activities for UG students to hone their creative thinking, social responsibilities, health & fitness, Communication Skills and Library science. The activities include Hindi Literary, Kannada Literary, Kannada kali, Tie & Dye, Embroidery, Community Work, Gardening, Fitness, English Lab, Personality Development, Yoga and e-library.

The NSS wing organizes and conducts teaching and extra-curricular activities for underprivileged children. Also health and sanitation camps, medical and dental services are provided for the needy.

Please refer to annexure 1.3.4 for more details.

**1.3.5 Citing a few examples enumerate on the extent of use of the feedback from stakeholders in enriching the curriculum?**

The College has put in place a mechanism to obtain online feedback on curriculum from academic peers, outgoing students, alumni, industry experts and parents. The feedback is analyzed by the IQAC and recommendations are made to the management.

**Table 9: Feedback details**

Stakeholder	Frequency and mode of feedback	Remarks
Students	End of semester online and offline feedback is taken	Online feedback introduced from 2016
Alumni	During alumni meet every year, online and offline	CADD and MMD courses are introduced based on the feedback
Academic peer	During their visit as guest speakers, online and offline	Number of enrichment programs, Skill development programs etc are increased.
Industry	During industry interaction, online and offline	Soft skill development program in association with 7 <sup>th</sup> sense was conducted

**1.3.6 How does the institution monitor and evaluate the quality of its enrichment programs?**

Institutional committees like IQAC, Grievance Cell and various clubs oversee the enrichment programs. The IQAC ensures maximum student participation in the enrichment program. Feedback is collected for the same where the analysis and revamping is done customarily.

**1.4 Feedback System**

**1.4.1 What are the contributions of the institution in the design and development of the curriculum prepared by the University?**

The institution is affiliated to Bangalore University and thus follows the curriculum set by the University. Few Faculty members are part of BOS. Their views and suggestions are discussed and then the institutional curriculum is designed. Many have been involved in the recent revision of syllabus in the University. Most of the faculty are in the panel of examiners and are also involved in evaluation process and setting up the question papers.

**1.4.2 Is there a formal mechanism to obtain feedback from students and stakeholders on Curriculum? If ‘yes’, how is it communicated to the University and made use internally for curriculum enrichment and introducing changes/new programs?**

Formal mechanism to obtain feedback is in place both online and offline which is taken by the stakeholders - Students, Alumni, Parents and industry personnel. These feedbacks are analysed and assessed by the IQAC which is communicated to the University through the

senior faculty, BOE and BOS members. Such feedback has resulted in timely changes in the syllabus, scheme of examination and practical experiments. Based on the feedback various add-on-programs and coaching have been introduced.

**Table 10: Add-on program and coaching details**

SI No	Add-on program/coaching	Year
1	CADD and MMD	2016
2	SAS	2016
3	Mindsmart	2016
4	NET/GATE Coaching	2016

**1.4.3 How many new programs/courses were introduced by the institution during the last four years? What was the rationale for introducing new courses/programs?**

Going by the Vision and Mission of the Institution and to cater to the ever growing demand for higher education in the field of Pure and Allied Sciences, the College has introduced two PG programs.

To bridge the gap between academia and industry and to enhance the skills of life science students the College, in association with KBITS has introduced a one year course where the students will be placed in research labs/ industry for six months' internship, which in turn will help them to understand the industry needs. Accordingly, one PG Diploma program has been introduced.

As the College has state-of-the-art infrastructure and efficient faculty from diverse specializations, the College has been conferred with the Research Centre status for the Departments and four Ph.D. programs.

**Table 11: New programs introduced**

Program	Subject	Year
PG diploma	Cellular and Molecular Diagnostics	2011
M.A.	English	2013
M.Sc.	Physics	2014
Ph.D	Biotechnology	2013
	Microbiology	2013
	Biochemistry	2014
	Computer Science and Applications	2014

**Other relevant points**

- ✚ Emphasis on implementing global competency amongst students
- ✚ Effective Implementation of Choice Based Credit system for the holistic development.
- ✚ Thrust on ICT enabled courses and ICT competence
- ✚ Curriculum supplemented with co-curricular activities
- ✚ Consistent University Ranks by the students.
- ✚ Introduction of add-on courses, Insistence on moral and ethical values

**Table 12: College ranking from past five years**

Year	Biospectrum Ranking	Neilson Survey- India Today Ranking	Week Hansa survey- Ranking	Career 360

2016	Survey not conducted	3 <sup>rd</sup> in Karnataka and 14 <sup>th</sup> in India	4 <sup>th</sup> in Karnataka and 26 <sup>th</sup> in India	A+++ Ranking
2015	16 <sup>th</sup> best science College in India	4 <sup>th</sup> in Karnataka and 14 <sup>th</sup> in India	4 <sup>th</sup> in Bengaluru and 27 <sup>th</sup> in India	-
2014	Survey not conducted	16 <sup>th</sup> in India	31 <sup>st</sup> in India	-
2013	Ranked 8 <sup>th</sup> among top 10 Biotech Private College in India	3 <sup>rd</sup> in Karnataka, 15 <sup>th</sup> in India	-	-
2012	Ranked 8 <sup>th</sup> among top 10 Biotech Private College in India	46 <sup>th</sup> in India	-	-
2011	Ranked 8 <sup>th</sup> in Karnataka	-	-	-

**Table 13: Achievements in Bangalore University examination**

Sl. No	Name	Year of passing	Course	Rank
1.	Gowrang More	2011	M.Sc Biochemistry	I
2.	Rahul Kumar		M.Sc Biochemistry	III
3.	Pravin pathak	2012	M.Sc Chemistry	I
4.	Mohammed Riyaz Akhter		M.Sc Applied Genetics	IV
5.	Aakanksha		M.Sc Biochemistry	V
6.	Manjunath H B	2013	M.Sc Electronics	I
7.	Moumita Arun Kumar Sardar		M.Sc Biochemistry	I
8.	Chinta Sidharthan		M.Sc Applied Genetics	I
9.	Umang Ahlawat		M.Sc Microbiology	III
10.	Abdul Hamid Bhat		M.Sc Chemistry	IV
11.	Debjani Basu Mazumder		M.Sc Microbiology	V
12.	Iyer Gayatri Rangarajan	2014	M.Sc Applied Genetics	I
13.	Nambidi Chitra		M.Sc Applied Genetics	II
14.	Patel Bushnin Waseem		M.Sc Applied Genetics	III
15.	Supriya V		M.sc Computer Science	III
16.	Malabika Bera		M.Sc Biochemistry	III
17.	Athulya mohan		M.Sc Applied Genetics	IV
18.	C R Bhavana Murthy		M.Sc Biochemistry	IV
19.	Harshajyothi		M.Sc Biochemistry	V
20.	Hima C		M.Sc Microbiology	V
21.	Kavya Y L		B.sc Fashion and Apparel Design	IX
22.	Priyanka maurya		M.sc Microbiology	I
23.	Akshatha R		M.Sc Computer Science	I
24.	Kulakarni amol nilendra		M.sc Microbiology	II

25.	Roopa R	2015	B.sc Fashion and Apparel Design	III
26.	Praneetha d chaphekar		M.sc Microbiology	IV
27.	Kavya V		M.sc Microbiology	V
28.	Sudiptha samanta		M.sc Chemistry	V
29.	Geetha G		M.sc Computer Science	V
30.	Dhanya mohan		B.sc Fashion and Apparel Design	VII
31.	Nithisha K T	2016	M.Sc Biotechnology	II
32.	Nagma Begum		M.sc Computer Science	II
33.	Shruthi Yadav N		M.Sc Electronic Science	III
34.	Namosita Rakshit		M.Sc Applied Genetics	III
35.	Jincy James		M.Sc Statistics	III
36.	Denath Kumar G		M.Sc Computer Science	III
37.	Amrutha Sivanandan		M.Sc Microbiology	III
38.	Krishna Madhukumar G		M.Sc Biochemistry	IV
39.	Dakshitha S Setty		M.Sc Microbiology	IV
40.	Manjula G		M.Sc Electronic Science	V
41.	Mamatha S		B.sc Fashion and Apparel Design	VI

## CRITERION II: TEACHING - LEARNING AND EVALUATION

### 2.1 Student Enrollment and Profile

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

The College follows the following methods to ensure publicity and transparency in the admission process:

**Table 14: Publicity of admission**

Mode	Details
Advertisements	Regional and national newspapers, electronic media, leaflets, banners, hoardings at prominent places, coverage of events in other media
Website	Application form can be downloaded from the website <a href="http://www.theoxford.edu">www.theoxford.edu</a>
College prospectus	Details of all courses offered is available in the College prospectus
Notice Board	The College notice board, hostel notice board and the notice board of all sister concerns of The Oxford College contain details of the admission process
University website	Admission notice is updated in the University website

#### Transparency:

- ✚ The College has constituted an Admission Committee to oversee the admission process.
- ✚ The committee stringently verifies the authenticity of the parent University/Institution.
- ✚ Prospective students and their parents are counseled about the courses and its avenues
- ✚ Staff council and admission committee makes sure the transparency in admission process is carried out uniformly according to the admission criteria.

#### 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.

The admission committee determines the admission criteria for all courses and all students (same state, other state, foreign students). The College complies with the University norms.

**Table 15: Process for admission**

Course	Same state / Different state	Foreign
UG	As per University norms based on merit cum reservation	As per Govt. norms (ICCR)

Course	Same state / Different state	Foreign	Management Quota
PG	50% of seats of PG courses are filled by University based on	Foreign students from neighboring SAARC/ other	Merit cum interview

	merit cum reservations. If any entrance test has been prescribed for admission (PGD) only such candidates who are qualified in the entrance test by securing rank are selected.	countries are inducted on merit cum interview.	
MCA	The admission process is based on merit with a minimum cut off percentage. Students who have secured above 50% in their graduate program and cleared the state level- KMAT as per University norms are eligible for admission. Also, University quota seats are filled through state level PG CET of Karnataka conducted by Vishweshwariah Technical University, Belgaum.		
PGD	Selection through KBAT online exam of Government of Karnataka and interview		
Ph. D	Entrance exam and counselling by Bangalore University		

**2.1.3 Give the minimum and maximum percentage of marks for admission at entry level for each of the programs offered by the College and provide a comparison with other Colleges of the affiliating University within the city/district.**

**Table 16: COURSE: BSc/BCA - Maximum cut-off**

Academic Year	GM		SC		ST		OBC (average of all categories)	
	Boys	Girls	Boys	Girls	Boys	Girls	Boys	Girls
2012-2013	76	92.5	62	75.2	64	49	63	90.3
2013-2014	73.3	94	71.2	74	35	65.6	81	66
2014-2015	83.0	89.2	53.0	71.6	54.3	63.4	68.2	75
2015-2016	86.5	97.2	85.1	81.4	63.8	62.7	83.5	96.4
2016-2017	96.3	95.7	89.6	79.6	76.5	74.6	92	95

**Table 17: COURSE: BSc/BCA - Minimum cut -off**

Academic Year	GM		SC		ST		OBC (average of all categories)	
	Boys	Girls	Boys	Girls	Boys	Girls	Boys	Girls
2012-2013	35.2	50.6	45.0	52.8	42.0	40.1	43.0	50.0
2013-2014	42	62	43.5	61.6	35	53	40.8	56.2
2014-2015	46	55.5	44	56.2	54.3	63.4	49.1	58.6
2015-2016	35	45	36.5	49.3	50	62	43.5	49.8
2016-2017	45	48	42	50.8	49.1	58	40.6	46.8

**Table 18: COURSE: MSc. Chemistry - Maximum cut-off**

Academic Year	GM		SC		ST		OBC (average of all categories)	
	Boys	Girls	Boys	Girls	Boys	Girls	Boys	Girls
2012-2013	70.0	76.0	59.2	-	-	-	71.4	76.1
2013-2014	84.36	88.16	65.03	-	-	-	65.0	72.6



2014-2015	69.0	83.4	62.6	72.2	-	-	65.0	83.9
2015-2016	83.4	80	59	72	-	-	59	83
2016-2017	89.6	85	57	62.5	-	78	74.3	58.1

**Table 19: COURSE: MSc. Chemistry - Minimum cut-off**

Academic Year	GM		SC		ST		OBC (average of all categories)	
	Boys	Girls	Boys	Girls	Boys	Girls	Boys	Girls
2012-2013	69.0	65.0	59.2	-	-	-	71.4	73.1
2013-2014	67.5	58.3	57.7	-	-	-	57.0	72.6
2014-2015	57.6	69.0	62.6	56.0	-	-	61.0	58.0
2015-2016	60	68	59	72	-	-	59	65
2016-2017	59	57.5	53	60.8	-	78	59	58.1

**Table 20: COURSE: MSc. Biochemistry - Maximum cut-off**

Academic Year	GM		SC		ST		OBC (average of all categories)	
	Boys	Girls	Boys	Girls	Boys	Girls	Boys	Girls
2012-2013	73.4	87.9	71.0	67.2	50	-	70.4	83.3
2013-2014	78	80	61.7	61	-	-	65	67
2014-2015	75.2	80	65	-	57.2	-	75	72
2015-2016	73	92	66	66.3	-	-	-	-
2016-2017	75.7	81.3	63	74	-	-	57	75.1

**Table 21: COURSE: MSc. Biochemistry - Minimum cut - off**

Academic Year	GM		SC		ST		OBC (average of all categories)	
	Boys	Girls	Boys	Girls	Boys	Girls	Boys	Girls
2012-2013	59	64	67.7	67.2	50	-	70.4	83.3
2013-2014	58	54	61.7	61	-	-	61.7	61
2014-2015	64	53	65	-	57.2	-	64	66
2015-2016	60	62	65	65	-	-	-	-
2016-2017	47.7	53	58	57	-	-	57	59.7

**Table 22: COURSE: MSc. Biotechnology - Maximum cut-off**

Academic Year	GM		SC		ST		OBC (average of all categories)	
	Boys	Girls	Boys	Girls	Boys	Girls	Boys	Girls
2012-2013	73	86	-	68	-	-	-	71.8
2013-2014	83	91	-	82	64	-	73	-
2014-2015	82	84	-	-	53	-	-	62
2015-2016	74	86	62	-	-	-	61	80

2016-2017	83	84.1	63	76.3	-	62	59.3	81.6
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**Table 23: COURSE: MSc. Biotechnology - Minimum Cut – Off**

Academic Year	GM		SC		ST		OBC (average of all categories)	
	Boys	Girls	Boys	Girls	Boys	Girls	Boys	Girls
2012-2013	51	54	-	66	-	-	-	64
2013-2014	52	55	-	68	64	-	52	-
2014-2015	52	52	-	-	53.6	-	-	59
2015-2016	53	64	51	-	-	-	61	70
2016-2017	52.7	57.4	60	69.2	-	62	59.3	66.4

**Table 24: COURSE: MSc. Statistics - Maximum cut-off**

Academic Year	GM		SC		ST		OBC (average of all categories)	
	Boys	Girls	Boys	Girls	Boys	Girls	Boys	Girls
2012-2013	70	81	-	-	-	-	-	-
2013-2014	55	-	-	-	-	-	-	-
2014-2015	55	73	-	-	-	-	-	72
2015-2016	61	57	-	-	-	-	-	75
2016-2017	78	86.5	-	89.9	-	-	85.2	59.7

**Table 25: COURSE: MSc. Statistics - Minimum cut – Off**

Academic Year	GM		SC		ST		OBC (average of all categories)	
	Boys	Girls	Boys	Girls	Boys	Girls	Boys	Girls
2012-2013	66	45	-	-	-	-	-	-
2013-2014	55	-	-	-	-	-	-	-
2014-2015	55	73	-	-	-	-	-	72
2015-2016	61	57	-	-	-	-	-	70
2016-2017	78	54.6	-	89.9	-	-	85.2	59.7

**Table 26: COURSE: MSc. Mathematics - Maximum cut-off**

Academic Year	GM		SC		ST		OBC (average of all categories)	
	Boys	Girls	Boys	Girls	Boys	Girls	Boys	Girls
2012-2013	78.9	81.5	64	-	-	-	-	-
2013-2014	70	76	62	52	-	-	86	85
2014-2015	75	79	-	-	57	-	61	58
2015-2016	54	-	-	75	-	-	58	65
2016-2017	83.8	73.2	66.7	-	-	-	50.3	51.1

**Table 27: COURSE: MSc. Mathematics - Minimum Cut - Off**

Academic Year	GM		SC		ST		OBC (average of all categories)	
	Boys	Girls	Boys	Girls	Boys	Girls	Boys	Girls
2012-2013	51	51	64	-	-	-	-	-
2013-2014	54	50	51	52	-	-	55	56
2014-2015	65	58	-	-	57	-	53	51
2015-2016	54	-	-	65	-	-	58	60
2016-2017	50.3	51	66.7	-	-	-	50.3	51.1

**Table 28: COURSE: MSc Computer Science - Maximum cut-off**

Academic Year	GM		SC		ST		OBC (average of all categories)	
	Boys	Girls	Boys	Girls	Boys	Girls	Boys	Girls
2012-2013	79.6	76	-	72.3	-	-	-	-
2013-2014	78	71	72.2	-	64.2	-	65.2	62.3
2014-2015	75.5	76.3	75	-	-	-	-	78
2015-2016	75	66	59.5	60	-	62	-	-
2016-2017	94.2	77	52.6	-	-	-	76	63

**Table 29: COURSE: MSc Computer Science - Minimum cut-off**

Academic Year	GM		SC		ST		OBC (average of all categories)	
	Boys	Girls	Boys	Girls	Boys	Girls	Boys	Girls
2012-2013	68	69.3	-	69.3	-	-	-	-
2013-2014	55.5	53	72.2	-	64.5	-	58.4	59.4
2014-2015	53.4	52	64.6	-	-	-	-	68.6
2015-2016	63	61	59.5	60	-	62	-	-
2016-2017	56.5	63	50.7	-	-	-	60	55.4

**Table 30: COURSE: MSc Physics - Maximum cut-off**

Academic Year	GM		SC		ST		OBC (average of all categories)	
	Boys	Girls	Boys	Girls	Boys	Girls	Boys	Girls
2014-2015	69.12	77.31	62	-	-	57.12	66	66.5
2015-2016	-	69.21	62.4	-	5.4	78.75	81.7	85.7
2016-2017	71	76	-	54	-	-	-	-

**Table 31: COURSE: MSc Physics - Minimum cut-off**

Academic Year	GM		SC		ST		OBC (average of all categories)	
	Boys	Girls	Boys	Girls	Boys	Girls	Boys	Girls

2014-2015	60.3	56.1	57.2	-	-	57.1	59.3	56.1
2015-2016	-	51.9	-	62.4	-	54	78.7	58.8
2016-2017	56.8	59	-	54	-	-	-	-

**Table 32: COURSE: MCA - Maximum cut-off**

Academic Year	GM		SC		ST		OBC (average of all categories)	
	Boys	Girls	Boys	Girls	Boys	Girls	Boys	Girls
2012-2013	73.5	72.5	58.7	-	-	-	63.3	-
2013-2014	70.3	75	-	-	-	-	60.5	-
2014-2015	70	68.6	-	-	-	-	-	69.1
2015-2016	76	72.6	57	82	75	-	87	72
2016-2017	73.7	74	-	67.3	-	-	-	-

**Table 33: COURSE: MCA - Minimum cut-off**

Academic Year	GM		SC		ST		OBC (average of all categories)	
	Boys	Girls	Boys	Girls	Boys	Girls	Boys	Girls
2012-2013	50	48.6	58.7	-	-	-	63.3	-
2013-2014	50.69	59	-	-	-	-	60.5	-
2014-2015	52.06	58.1	-	-	-	-	-	57.7
2015-2016	60.7	50	57	82	59.7	-	57	63.7
2016-2017	55.5	54.6	-	67.3	-	-	-	-

**Table 34: COURSE: Applied Genetics - Maximum cut-off**

Academic Year	GM		SC		ST		OBC (average of all categories)	
	Boys	Girls	Boys	Girls	Boys	Girls	Boys	Girls
2012-2013	-	87	-	-	-	-	65	-
2013-2014	74	83.1	-	-	-	-	-	65
2014-2015	84.3	63	-	-	-	-	-	63
2015-2016	83	84.5	64.6	-	-	-	-	-
2016-2017	81	85.4	-	-	-	-	69.7	-

**Table 35: COURSE: Applied Genetics - Minimum cut-off**

Academic Year	GM		SC		ST		OBC (average of all categories)	
	Boys	Girls	Boys	Girls	Boys	Girls	Boys	Girls
2012-2013	-	54	-	-	-	-	65	-
2013-2014	74	64	-	-	-	-	-	65
2014-2015	62.7	61	-	-	-	-	-	63

2015-2016	83	62	64.6	-	-	-	-	-
2016-2017	62.8	68.5	-	-	-	-	69.7	-

**Table 36: COURSE: Electronic Science - Maximum cut-off**

Academic Year	GM		SC		ST		OBC (average of all categories)	
	Boys	Girls	Boys	Girls	Boys	Girls	Boys	Girls
2012-2013	70	72.56	67.16	-	-	-	-	-
2013-2014	63	79.62	62.43	-	-	-	63.87	75
2014-2015	68.7	80.95	-	-	-	-	81.91	88.62
2015-2016	-	-	-	-	-	-	-	-
2016-2017	58.8	55.5	54.1	-	-	-	53.7	-

**Table 37: COURSE: Electronic Science - Minimum cut-off**

Academic Year	GM		SC		ST		OBC (average of all categories)	
	Boys	Girls	Boys	Girls	Boys	Girls	Boys	Girls
2012-2013	62	62.8	67.16	-	-	-	-	-
2013-2014	52	59	62.43	-	-	-	63.87	72
2014-2015	53	51.5	-	-	-	-	56.87	88.62
2015-2016	-	-	-	-	-	-	-	-
2016-2017	54.7	50.7	54.1	-	-	-	53.7	-

**Table 38: COURSE: M. Sc Microbiology - Maximum cut-off**

Academic Year	GM		SC		ST		OBC (average of all categories)	
	Boys	Girls	Boys	Girls	Boys	Girls	Boys	Girls
2012-2013	67	85.5	-	73.6	-	-	-	-
2013-2014	76.5	88.1	82.3	-	60.2	-	70	79
2014-2015	73.3	86.7	68	70.5	53.5	55	69.8	89.7
2015-2016	65	87.5	84.6	70	-	89.9	75	86
2016-2017	84.1	82	60	76	-	62	67	81

**Table 39: COURSE: M. Sc Microbiology - Minimum cut-off**

Academic Year	GM		SC		ST		OBC (average of all categories)	
	Boys	Girls	Boys	Girls	Boys	Girls	Boys	Girls
2012-2013	60	51.6	-	73.6	-	-	-	-
2013-2014	50.3	55.0	55	-	60.2	-	55.7	72.2
2014-2015	50.2	50.6	68	58.2	53.5	55	64.7	56.2
2015-2016	52	64	84	70	-	80	66	64

2016-2017	55.4	59	60	70	-	62	66	63
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**Table 40: COURSE: M.A English - Maximum cut-off**

Academic Year	GM		SC		ST		OBC (average of all categories)	
	Boys	Girls	Boys	Girls	Boys	Girls	Boys	Girls
2013-2014	-	87	-	-	-	-	-	-
2014-2015	-	67	-	-	-	-	-	-
2015-2016	-	66	-	-	-	-	-	-
2016-2017	80.2	-	-	-	-	-	-	-

**Table 41: COURSE: M.A English - Minimum cut-off**

Academic Year	GM		SC		ST		OBC (average of all categories)	
	Boys	Girls	Boys	Girls	Boys	Girls	Boys	Girls
2013-2014	-	87	-	-	-	-	-	-
2014-2015	-	51.2	-	-	-	-	-	-
2015-2016	-	50.6	-	-	-	-	-	-
2016-2017	80.2	-	-	-	-	-	-	-

**Table 42: Consolidated Cut – off Percentages for different courses**

Sl no	Course	Year	% of Maximum Cut off	% of minimum Cut off
1	B.Sc	2012-13	92	40
		2013-14	94	40.8
		2014-15	89	44
		2015-16	92	41
		2016-17	96.3	40.6
2	MSc Chemistry	2012-13	76.1	59
		2013-14	88.16	58.3
		2014-15	83.4	57.6
		2015-16	83	59
		2016-17	89.6	53
3	M Sc Physics	2014-15	77.3	56.1
		2015-16	85.7	51.9
		2016-17	76	54
4	M.Sc. Biochemistry	2012-13	87.9	50
		2013-14	80	54
		2014-15	80	53
		2015-16	92	60

		2016-17	81.3	47.7
5	MSc Biotechnology	2012-13	86	51
		2013-14	91	52
		2014-15	84	52
		2015-16	86	51
		2016-17	84.1	52.7
6	MSc Statistics	2012-13	81	45
		2013-14	55	55
		2014-15	73	73
		2015-16	75	61
		2016-17	89.9	54.6
7	M.Sc Mathematics	2012-13	81	51
		2013-14	86	50
		2014-15	79	51
		2015-16	75	54
		2016-17	83.8	50.3
8	M.Sc Microbiology	2012-13	85	51.6
		2013-14	88	50
		2014-15	89.7	50.2
		2015-16	89.9	80
		2016-17	84.1	55.4
9	Msc Computer Science	2012-13	79.6	68
		2013-14	78	55.5
		2014-15	76.3	52
		2015-16	75	59.5
		2016-17	94.2	50.7
10	M.Sc Applied Genetics	2012-13	87	54
		2013-14	83.1	64
		2014-15	84.3	61
		2015-16	84.5	62
		2016-17	85.4	62.8
11	M.Sc Electronic Science	2012-13	72.6	62
		2013-14	79.6	52
		2014-15	88.6	51.5
		2015-16	-	-
		2016-17	58.8	50.7
12	MCA	2012-13	73.5	48.6
		2013-14	75	50.69

		2014-15	70	52
		2015-16	87	50
		2016-17	74	55.5
13	MA – English	2013-14	87	87
		2014-15	67	51
		2015-16	66	50.6
		2016-17	80.2	80.2

**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 Chairman of the The Oxford Group of Institutions directs the Principal and admission committee to review student profile every year and come out with new strategies for betterment.

- ✚ The Admission committee reviews the student profile and academic profile is designed accordingly
- ✚ Online Psychometric profile mapping is introduced from the year 2016. Report is provided in annexure 2.1.4

**Table 43: Student Profile**

Categories	2012-13		2013-14		2014-15		2015-16		2016-17	
	Male	Female	Male	Female	Male	Female	Male	Female	Male	Female
SC	16	15	25	8	16	10	29	25	60	36
ST	5	5	3	3	6	8	2	9	8	7
OBC	9	4	74	45	52	61	61	86	91	99
General	261	250	198	192	156	173	94	182	281	250
Others	-	-	-	-	2	2	4	4	12	8
Total	<b>291</b>	<b>274</b>	<b>300</b>	<b>248</b>	<b>230</b>	<b>252</b>	<b>186</b>	<b>302</b>	<b>440</b>	<b>392</b>

**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.**

Institution has composite students who hail from different parts of the countries.

**SC/ST/OBC:**

✚ Institution abides to reservation policies of Government of Karnataka for all categories of students.

**Table 44: Minority/Category Student profile**

	2012-13	SC	ST	OBC	Foreign
BSc.		7	4	1	-



BCA	10		3	-
MSc.	14	6	9	-

2013-14	SC	ST	OBC	Foreign
BSc.	11	3	28	-
BCA	8	1	40	-
MSc.	15	2	51	-

2014-15	SC	ST	OBC	Foreign
BSc.	10	04	18	1
BCA	04	01	40	2
MSc.	11	08	50	1
MCA	01	01	05	-

2015-16	SC	ST	OBC	Foreign
BSc.	22	06	59	2
BCA	14	00	09	-
MSc.	15	05	45	4
MCA	03	02	34	2

2016-17	SC	ST	OBC	Foreign
BSc.	42	7	80	11
BCA	38	5	58	1
MSc.	16	3	52	7
MA English	-	-	-	1

**Women:**

- ✚ Institution has a policy to have male – female enrollement ratio of 50:50
- ✚ Women Empowerment Cell empowers young women to deal with life challenges.

**Differently abled:**

- ✚ The differently abled students are given preference in admission to various courses
- ✚ Infrastructure wise facilities like ramp, lift, wheel chair etc are provided.

**Economically Weaker Sections:**

- ✚ Every year Management Endowment Scholarship is provided
- ✚ The College management has a provision to waive-off fee partially in the fee structure or allot free seat to most deserving students to promote inclusiveness and encourage the entry of students from deprived class

**2.1.6 Provide the following details for various programs 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.**

The following table shows the number of applications received, number of students admitted to degree course along with demand ratio for the entire course of UG and PG.

**Table 45: Student's details for the Academic year 2013-14 and 2014-15**

Programs	Number of applications		Number of students admitted		Demand Ratio	
	2013-2014	2014-2015	2013-2014	2014-2015	2013-2014	2014-2015
BSC	169	148	158	130	1.06962	1.138462
BCA	130	105	126	103	1.03	1.019417
M. Sc	257	224	245	201	1.04898	1.114428
MCA	-	22	-	20	-	1.1
MA English		5		5		1
PG Diploma	482	670	17	17	28.35	39.41176

**Table 46: Student's details for the Academic year 2015-16 and 2016-17**

Programs	Number of applications		Number of students admitted		Demand Ratio	
	2015-2016	2016-2017	2015-2016	2016-2017	2015-2016	2016-2017
BSC	238	645	206	397	1.15534	1.624685
BCA	106	200	106	197	1	1.015228
M. Sc	218	396	201	257	1.08458	1.540856
MCA	18	180	13	0	1.38462	-
MA English	10	20	4	1	2.5	20
PG diploma	810	-	25	-	32.4	-

**Reasons for Increase in demand**

- ✚ The demand has been consistent for all the courses. However, the demand for PG Diploma has increased over the years.

### Student Diversities across the Country (2015-2016)



## 2.2 Catering to Student Diversity

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

The Oxford College of Science caters to the needs of differently abled students and adheres to government policies to the best possible extent.

- ✚ The College has ramp facilities to ensure barrier-free environment in the campus.
- ✚ There are Lifts (elevators) and a lift operator for helping such students.
- ✚ Antiglare Lights & Computer Screens for partially sighted is provided.
- ✚ Differently -abled students are encouraged to avail scholarships and other welfare schemes of the Central / State Government.
- ✚ Differently -abled students are supported during the examination as per University norms. Counselling is also provided.

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

We have different strategies for the assessment of students needs in terms of knowledge and skills before the commencement of the program.

- ✚ **Level I Strategy:** Career counseling/suitable guidelines are offered for prospective students much before the commencement of the program.
- ✚ **Level II Strategy:** A common orientation program is conducted followed by a bridge course in respective Departments. A test at the end of the bridge course is conducted to analyze the understanding of the subject by the student. Based on these results their skills are analyzed which act as an important tool to design the action plan to achieve academic excellence. During this, students are encouraged to interact with the Department staff members and discuss their needs and queries related to the program.
- ✚ **Level III Strategy:** Based on the result of quiz, class test etc., students are given a choice to change (if required) their combinations after counseling.

### 2.2.3 What are the strategies adopted by the institution to bridge the knowledge gap of the enrolled students (Bridge/Remedial/ Add-on/Enrichment Courses, etc.) to enable them to cope with the program of their choice?

The institution has adopted several innovative strategies for bridging the knowledge gap of the newly enrolled students and empower them to cope with growing demands of the course chosen for degree.

- ✚ Bridge course is conducted by every Department followed by a test.
- ✚ Once the knowledge gap of the enrolled students is identified and their need realized, special remedial classes and lectures are arranged for the selected students besides the regular routine.
- ✚ Students are encouraged to interact with the faculty outside the class room.
- ✚ **Add-on Courses:** The average and advanced learners are introduced to Add-on courses. College has introduced Add-on course like CADD and MMD, software testing by Selenium, Chemoinformatics, SAS, memory and pedagogical technique.
- ✚ Undergraduate and Post graduate students are provided with opportunity to participate in research projects. Some of the projects are carried out in collaboration with external research institutions/industries such as IISc, UAS, IIHR, NIANP, Anthem Biosciences, Biocon, Sigma Aldrich etc.

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

The College has set up Women Empowerment Cell, Staff Welfare Committee under HR and Placement Cell that organize various events to sensitize its staff and students on issues related to gender discrimination, inclusion and environment.

The Oxford Eco club is functional, wherein various activities related to environment and its conversation are organised.

The details of activities conducted by the clubs and cells are noted in annexure 2.2.4.

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

Advanced learners are identified in the initial interactions in the classes and based on their performance in previous examinations and internal tests.

- ✚ The College helps academically strong students to secure internships in reputed institutions.
- ✚ Advanced students are encouraged to participate in paper presentations, workshops, seminars etc. organized by different institutions.
- ✚ Students with notable research abilities participate in research activities under the external sponsored research projects and apply for research projects.
- ✚ Extended library facility like membership of IIM Bengaluru, IISc Bengaluru is provided to the promising students.
- ✚ Advanced learners are given opportunity of peer teaching for the junior students.
- ✚ Identified promising students have undergone special training in respective courses for securing University ranks.

### **2.2.6 How does the institute collect, analyze and use the data and information on the academic performance (through the program duration) of the students at risk of drop out (students from the disadvantaged sections of society, physically challenged, slow learners, economically weaker sections etc. who may discontinue their studies if some sort of support is not provided)?**

- ✚ Analysis of academic performance of students is done through class coordinators.
- ✚ The Heads of the Department keep track of the overall academic performance of the students
- ✚ Meetings are held in Departments to discuss the performance of students.
- ✚ The College also has an active attendance monitoring system which is analyzed and reviewed regularly. Trends of absenteeism are picked out, thus also identifying potential dropouts in the process.
- ✚ The identified students and their parents/guardians are counseled and approached to ascertain the reasons causing absenteeism & poor academic performance.
- ✚ In addition to academic counseling, fees concession may be arranged for economically disadvantaged students.

## 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 and evaluation blue print, etc.

#### Academic Calendar

- ✚ At the beginning of the semester, HODs, in consultation with faculty, submit activity details to Dean Academics, who in turn, prepares the academic calendar under the broad guidance of Bangalore University calendar of events.
- ✚ The Academic Calendar reflects information regarding commencement and end of semester terms, orientation program, bridge course, IA tests, industry visits, guest lectures, workshops, enrichment programs, Add-on programs, awareness programs, commencement of end semester exams etc.
- ✚ Co-curricular and extra-curricular activities such as sports meet, science exhibitions, Departmental fests, intra and inter-collegiate cultural fests, conference, alumni meet, NSS activities, investiture ceremony, graduation day, parent teacher meeting, general holidays, study vacation etc. and coordinators for each event are also depicted in the academic calendar to ensure meticulous execution of the activities.

#### Teaching Plan

- ✚ Lesson plans, Department library book list, question bank for online assessment etc. are prepared by the faculty, which is reviewed by the HOD and the Principal. Faculty also maintain a work diary which is also assessed by the HOD.
- ✚ This plan is uploaded in the CMS and the hard copy is provided to the students in the beginning of the semester
- ✚ The HODs periodically review the syllabus coverage and corrective measures such as additional class, remedial class etc. and are adopted during Department staff meeting.
- ✚ Previous five years' question papers are discussed/solved in the class after completion of syllabus

#### Evaluation blue print

- ✚ The Continuous Cumulative Evaluation (CCE) is followed based on parameters viz., assignments, seminar, attendance, Internal test/Mock practical that are determinant of the internal assessment score
- ✚ Assignments are provided at the end of each unit.
- ✚ Weightage is provided to assignments for the determination of internal assessment marks.
- ✚ The Examination Committee in consultation with the Dean-Examination schedules test time table. The test marks are also a determinant of the internal assessment score.
- ✚ Students' performance is continuously assessed in the laboratory with the parameters of their active participation, prompt record submission, involvement in the group discussion, mock practical exam etc.,
- ✚ The end semester examination time table is scheduled by the University. Results are analyzed by the respective Departments and the same is communicated to parents.

### Innovative methods adopted in Teaching

Innovation in teaching has been the hallmark of the College. Some unique approaches adopted are

- ✚ Peer teaching methodology for M.Sc. students
- ✚ Workshop by the students for the students to hone their employability skills
- ✚ Problem based learning – a unique approach to instill scientific attitude towards feasible practical solutions
- ✚ Industry visits, Workshops/training programs are planned in line with the syllabus to fortify their learning.

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

The IQAC plays a crucial role in assessing and improving academic standards to ensure sustenance and enhancement of quality of the teaching-learning process in the institution. Under the guidance of IQAC, five deanery have been formed headed by Coordinators to facilitate teaching learning process.

**Table 47: Deanery details**

Sl. No.	Deanery	Responsibilities
1	Academics	Improve teaching learning, organize FDP, prepare academic calendar, introduce curricular enrichment programs, analyse workload etc
2	Research and Development	Update faculty about grant notifications, inculcate research culture in the campus, frame strategies to increase paper publications, in-house projects etc
3	Examination	Conduct University exams, Internal tests, Orientation program for new faculty, analyse examination results etc
4	Administration	Monitor discipline through anti ragging committee, address issues related to behavioural and grievance redressal cell, implementation and monitoring of campus management system etc
5	HR and Placement	Conduct pre placement activities like personality development, soft skill development, mock interviews, placement drive, staff development strategies and women empowerment and alumni association activities etc

The collaborative endeavor of all the above Deanery, the Principal and the Management is to maintain consistently high standards of quality in teaching and learning. IQAC is deemed to function as the pivot for the establishment and maintenance of quality, and the fulfillment of the vision and mission of the Institution with greater focus and dedication.

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

The College strongly endorses the student centric approach by implementing curriculum planning practices, pedagogy and assessment methods that support a student-centric approach. To achieve this, the faculty avails ICT enabled classrooms, transportation facility, English Lab, well equipped laboratories/library, industry associations to ensure a tangible outcome.

**Table 48: Pedagogical techniques adopted**

Sl. No	Skills	Pedagogical Tools	Support Structure/ System
1	Interactive Learning	PBL, Quiz, Group discussions, student seminar, Journal club, Exhibition	ICT enabled class room/ Lab/ Digital Library/ Internet facility
2	Collaborative Learning	Science Exhibition, debugging, in-house projects, poster/ chart preparation, workshops, circuit analysis, app development, design fashion accessories/apparel, fashion shows, case studies, surveys	Science Lab / Computer / Electronics Lab / computers installed with VHDL
3	Independent Learning	Peer Teaching, solving puzzles	ICT enabled classroom/ Digital Library/ Internet facility

**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?**

The following activities are practiced to encourage critical thinking, creativity and scientific temper of the students

- ✚ Institution has active Entrepreneurship Development Cell.
- ✚ In-house projects for the undergraduate and post graduate students
- ✚ Debate competitions, quiz, class tests, elocution, puzzles, crosswords, role play, paper review, group discussions, project work, assignments, app development, coding, gaming, Treasure Hunt, Forensic Mystery
- ✚ Hands on training, science exhibition and Departmental fests
- ✚ Oxford arts club, Eco clubs, Journal club etc

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



- ✚ Faculty upload PPT via e-campus and online discussion is facilitating through the same platform between the faculty and students
- ✚ Faculty use quality teaching material from resources such as CEC
- ✚ Faculty use LCDs, smart boards, PPTs and audio-visual clips
- ✚ State-of-the-art laboratories with advanced facilities like Bioprocess technology, Animal Cell Culture, Plant tissue culture, Cellular and molecular diagnostics, Sun Solaris Lab, Thin Client Lab, Web Technology Lab, Ubuntu lab for getting hands on experience on these technologies
- ✚ The library is equipped with DELNET and N-List facility which contains 6,000 e-journals and 97,000 e-books, internet facility
- ✚ Doodle, Survey monkey, Weebly, Moodle are used for tracking assignments, class tests, preparation of schedules etc.
- ✚ Software's like SPSS, SAS, R programming, RasMol, VEGA, Chimera, Chemdraw and online tools like NCBI, OMIM, GEO, EBI, DDBJ, EMBL, Clustal-W, Primer3, Galaxy, Biosuite, Panther etc. are used for research and practical classes.
- ✚ English Language Lab is multimedia enabled and has WORDSWORTH Software installed which hone the students' grammar and communication skills
- ✚ Teaching by using mobile apps (e-calculator apps and Grammar apps)
- ✚ FOSS (Free Open Source Software) is used to demonstrate abstract mathematical ideas.

### 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 College strives for advanced learning of faculty and students by encouraging various activities.

**Table 49: Learning activities**

<b>Blended learning</b>	The curriculum supports blended learning through Soft Core papers, Open Electives and interdisciplinary projects and film screening.
<b>Expert lectures and seminars</b>	The College organizes various expert lectures and seminars. Details are provided in the annexure 2.3.6 (a)
<b>Add-on programs</b>	The College offers various add-on programs. List is provided in annexure 2.3.6 (b)
<b>Industry and institute visits</b>	The College organizes visit to industry as well as institutes. Details are provided in the annexure 2.3.6 (c)
<b>Innovation projects</b>	A large number of faculty members have been involved in Innovation Projects such as SPiCE, KFIST, SMYSR, CISEE, WOS-A, UGC etc.

<b>Interaction</b>	Interaction with the faculties outside the classroom.
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**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 advice) provided to students?**

- ✚ Counseling and mentoring committee has been set up to address the academic, emotional and psycho-social issues of the students.
- ✚ Class coordinators are appointed for every class who play the role of a mentor.
- ✚ The College has professional counselor who counsels the students on one – on – one basis. Some of the issues addressed include inferiority complex, anxiety, peer pressure, examination phobia, home sickness and other stress etc.
- ✚ Online psychometric assessment is taken by the students to understand their strength and weakness.
- ✚ Counselling is provided during admission.
- ✚ Additionally, personal health check-ups, eye check-up, dental check-up by professional are extended to the students.

**Table 50: Support/Service**

Support/Service	No. of Students	Process	Agency/Cell
Personal health care	Approx 1400	Annual checkup for anemia and Diabetes detection, eye check-up and dental check - up followed by counseling talks, seminars and camps for	College Health Centre, Vasan eye care, The Oxford Dental/Medical Hospital
Personal growth	Approx. 650 annually	Group guidance, seminars and training	Career Guidance & Placement cell
Academic advice	300/year	Coaching for competitive examinations in Communicative English	Academic Council
Professional counseling	1459	Tips for a) How to face the Examination? How to face the Interview?	Counseling Services
Professional growth	460	Professional training- Career Opportunity in Health Care and Bio-Pharma Industries, transitioning from academic life to corporate life	7th Sense Talent Training Center, HR and Placement Cell
Psycho-social and cultural development	All the under graduate students	Training and exposure to literary, fine arts and theatre	Students Council
Professional sports	150/ year	Training in sports activities	Physical Education

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?

**Table 51: Innovative practices conceptualized and implemented**

Sl.no.	Innovative practices	Efforts	Impact
1	ICT teaching	Computer facility with advanced settings	Students could grasp the concepts clearly by visualizing the scientific/ technical process
2	Enrichment programs	PBL, Workshop, virtual labs, Journal club	Have developed collaborative/ Interactive/ Independent learning. Kindled the Innovative thinking leading to lab to land approach
3	Projects/Internship/ Case studies/ industry/Institute visits	In-house/industry / Institute collaborative projects for undergraduate and post graduate students	Increased industry institute interface and inclination towards research
4	Skill enhancement Programs	Quiz, Role play, group discussions, debate, seminars, science / exhibition, poster/ chart/ model making, code debugging, circuit analysis, app development, fashion accessories/apparel design, fashion shows, Department magazines/newsletters/Wall magazine, essay writing, Sudoku, crosswords, puzzles competitions	Improved team building, self confidence, and analytical/logical/reasoning capacity, leadership qualities, team spirit, time management, In total has tremendously helped to bring out the individual potential in a student
5	Awareness programs	Observe Internationally important days like ozone day, earth day, cancer day, water day, AIDS day, rabies day, hepatities day, mosquito day, environment day, health day etc	Created environment and health consciousness
6	Add-on programs	Add-on programs on CADD and MMD by RASA LifeSciences, SAS by INQRA, PHP, MySQL and JAVA by IIT – Mumbai	Improved employability skills

		Virtual Labs, Memory and Pedagogical Techniques by MINDSMART	
7	Peer teaching	Teaching soft core paper/workshop for the UG students under the guidance of a faculty.	Kindled the passion towards teaching and improved self confidence

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

The teaching learning process is augmented by the following library practices

- ✚ The library houses 25,376 books, subscribes to 16 newspapers, 94 journals and 28 magazines. About 500 books are added to the collection each year. Students can have access to e-resources like INFLIBNET, DELNET and IEEE.

The library is managed by qualified librarian. It contains 25,376 books, 9524 titles, 122 journals (22 international) and magazines, 16 newspapers and e-resources like INFLIBNET, DELNET and IEEE for 854 students with 1:11 student title ratio

- ✚ The library is kept open for all six days from 9.00 a.m. -4.00 pm with extended working hours till 6.00 p.m. in the evening to provide greater accessibility to the faculty, student and research scholars.

- ✚ Display of news paper clippings related to College events, Discoveries, Career/Higher study Opportunities, competitive exams notifications, scholarship notifications, to create awareness.

- ✚ Remote online access (<http://hsrinformationcentre.webs.com/>) to old question papers and to e-journals.
- ✚ Library is managed by qualified librarians
- ✚ Orientation is provided to new students and faculty

### 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.

The Institution does not confront problems in curriculum completion as the College meticulously plans all the vibrant matrix of cocurricular and extra curricular activities and prepares the academic calendar within the frame work of the University calendar of events. However, there are some challenges faced which are well addressed by adopting following ways:

- ✚ Compensatory lectures and practical classes are held on extra hours of Saturday and other working days. Also, special classes are held on Saturday and Sunday/ general holidays
- ✚ Ad-hoc appointments are done promptly without any delay so that teaching can continue uninterrupted.
- ✚ Lectures are organized by the experts and part time faculty under short term contingency scenario.

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

The quality of teaching-learning is monitored at various levels viz., Heads of the Department, Deans, IQAC and Principal.

#### Internal Evaluation:

- + Academic audit conducted by external quality assurance teams.
- + Department Meetings are held to monitor completion of curriculum according to the lesson plan.
- + Continuous evaluation like class tests, surprise test, IA examinations, student seminars help to evaluate the student learning outcome.
- + Student-teacher evaluation like feedback from student on teacher performance on the criteria of knowledge base, accessibility, interest generated, communication skill and overall performance is periodically collected and analysed.
- + Suggestion box has been installed in the campus to obtain feedback from all the stakeholder that is addressed by the Principal.

#### External Evaluation:

- + Bangalore University Local Inspection Committee comprising of academicians and an Administrative officer, visit the campus every year to conduct Academic and Administrative audit.
- + AICTE conducts online evaluation every year before providing renewal of affiliation.

## 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 College strongly believes that the teacher is the key factor in the learning process. Hence, College has framed policy fostering recruitment of qualified faculty who are passionate about teaching having Educational and Methodological competence. The strategies adopted for recruitment and retention of the faculty include:

#### Recruitment:

- + Selection committee comprising of Principal, Vice principal, Dean –Academics, Senior faculty member, Head of the concerned Department and subject experts recruit faculties based on demonstration lecture followed by technical and personal interview.
- + Number of vacancies to be filled is based on the workload analysis.
- + All posts are advertised prominently in leading newspapers and College website.
- + UGC guidelines is followed for eligibility. The applicants having Ph.D., M. Phil, and other higher qualifications, NET/SLET cleared are given preference.
- +

- Professionals in respective field are hired for soft skill, ‘Mrudu Kaushalya’ and other soft core papers

**Retention:**

- Experienced, talented faculty are identified and given additional responsible positions
- Faculty are encouraged to pursue research and participate in up-gradation programs like FDPs and refresher courses.
- Ad-hoc position are created to retain the experienced and talented faculty in their long leave (higher studies, maternity, health issues etc.)
- Welfare scheme is available as an answer to 6.3.5.
- Conducive work environment and safe campus is ensured with state of the art infrastructure and library facilities.

The College has strived hard to recruit and retain a group of qualified, committed and proactive teachers whose qualifications are given in the following table:

**Table 52: Qualification of Faculty**

Highest qualification	Professor		Associate Professor		Assistant Professor		Total
	Male	Female	Male	Female	Male	Female	
<b>Permanent teachers</b>							
D.Sc./D.Litt.	-	1	-	-	-	-	1
Ph.D.	1	4	7	5	1	8	26
M.Phil.	0	0	1	6	1	5	13
PG	0	0	1	3	14	37	55
<b>Temporary teachers</b>							
Ph.D.	-	-	-	-	-	-	-
M.Phil.	-	-	-	-	-	-	-
PG	-	-	-	-	-	-	-
<b>Part-time teachers</b>							
Ph.D.	1	1	-	-	-	1	3
M.Phil.	-	-	1	1	0	2	4
PG	-	-	-	-	1	3	4

**2.4.2 How does the institution cope with the growing demand/ scarcity of qualified senior faculty to teach new programs/ 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.**

To cope with the fulfillment of these programs, recruitments are made keeping in mind the requirement for emerging fields of science.viz., Bioinformatics, Geneomics, Proteomics, Molecular diagnostics, IPR and IT. Qualified and experienced visiting faculty, resources persons from specialized areas from the renowned institutions like IISC, ISRO, Forensic

science labs, IICPT, Singapore University, Mysore University and professionals from Industries like Biocon, Sericulture, NDRI, Sigma Aldrich, Anthem Biosciences, Tech Mahindra, Skanray technology, are engaged to teach the students.

There is a high degree of interdisciplinary collaboration in research owing to the innovation research projects scheme through which faculty have considerably broadened their disciplinary horizons.

The following faculty members were recruited to cope up with the new programs introduced in the College for the past 3 years

**Table 53: Faculty recruited for new program**

Sl.No	Name of the Faculty	Department	Specilization
1	Dr. Arpita Kundu	Genetics	BioInformatics
2	Ms. Iveen Pinky	Statistics	BioStatistics
3	Vinita Tapaskar	Computer science	JAVA
4	Shruthi	BT	BioInformatics
5	Dr. Manirupa Saha	Physics	Optical linear devices
6	Dr. Nirmala Nair	BT	Biosimilar
7	Dr.Ashok Kumar	GT	Monoclonal antibody
8	Dr. Ruchi	Maths	Latex
9	Syed Khuteja	Maths	Scilab
10	Punith	BT	Genomics
11	Dr. Sriram	Maths	Graphy theory

Details of faculty invited is available in annexure 2.3.6 a

**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 encourages and renders complete support to equip the faculty in its endeavour to enhance the quality in teaching. To achieve this, various strategies adopted are:

- ✚ Study leave is readily granted to teachers for pursuing higher studies
- ✚ The College regularly sends faculty to attend refresher courses and orientations courses of different professional development institutes across the country.
- ✚ Faculty members are given academic leave for attending conferences/workshops/seminars in various institutes.

**a) Nomination to staff development program**

**Table 54: Nomination to staff development program**

Academic Staff Development Program	Number of faculty nominated				
	2012-13	2013-14	2014-15	2015-16	2016-17
Refresher courses	0	2	1	2	-
HRD programs	65	60	60	35	30
Orientation programs	60	65	68	67	80

Staff training conducted by the University	0	0	2	4	4
Staff training conducted by other institutions	20	25	25	25	35
Summer / winter schools, workshops, etc	55	83	65	70	10

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

**Table 55: Faculty Training programs organized**

Teaching learning methods/approaches	<ul style="list-style-type: none"> <li>✚ Mind your Teaching conducted in association with Mindsmart Learning strategies, Bengaluru during 29<sup>th</sup> to 31<sup>st</sup> July 2015</li> <li>✚ Various guest lectures conducted in the College by professors of eminence from reputed institutions</li> <li>✚ Advances in Invitro cell culture and functional Application -FDP conducted during 6<sup>th</sup> to 10<sup>th</sup> July 2015 by Department of Biotechnology, Supported by DBT, New Delhi.</li> <li>✚ Recent Advances in Immuno Molecular Diagnosis -FDP conducted during 5<sup>th</sup> to 8<sup>th</sup> January 2013 in association with Aristogene Biosciences, sponsored by Govt of Karnataka,</li> </ul>
Assessment	<ul style="list-style-type: none"> <li>✚ Online MCQ is introduced from the year 2016. Training is conducted on the same.</li> </ul>
Cross cutting issues	<p>The College takes utmost care to see that all development initiatives promoted have a positive effect on issues such as gender equality, women safety and the environment. The programs organized over the years are the testimony for the same.</p> <ul style="list-style-type: none"> <li>✚ <b>Role of Women in Society</b> by Dr. Sandya, Lecturer, National College, Bengaluru during 2012.</li> <li>✚ A martial art demonstration by Abhimanyu, Academy of martial arts and fitness, H.S.R. layout, 2013.</li> <li>✚ Debate and poem competition on <b>Is women safe in India?</b> and <b>My Mother</b>, 2014</li> <li>✚ <b>How to create a happy and fulfilling environment at home and office?</b> by Ms. Fathima Khadhir, Founder, Evolve ED, 2015.</li> <li>✚ Healthy cookery show on <b>We are what we eat</b> by Chef Sathyabhama of The Oxford College of Hotel Management. 2016.</li> </ul>
ICT Usage	<ul style="list-style-type: none"> <li>✚ Training organized from 2011 to 2017 on usage of e-campus every semester.</li> </ul>



Handling new curriculum	<ul style="list-style-type: none"> <li>+ <b>Blow-up and contents to be covered for the revised syllabus of Biochemistry</b> a workshop on revised Biochemistry syllabus CBCS- conducted during 20<sup>th</sup> -21<sup>st</sup> February 2015 by Vijaya College.</li> <li>+ <b>Refresher course on Material Science</b> conducted during 9<sup>th</sup>-24<sup>th</sup> September 2014 by Indian Academy of Science.</li> <li>+ <b>Workshop on BSc physics syllabus of Sem III and IV</b> conducted by Vijaya College during 16<sup>th</sup> July 2011.</li> <li>+ <b>Workshop on revision of B.Sc. Syllabus</b> CBCS scheme conducted by KLE College on 11<sup>th</sup> to 13<sup>th</sup> April 2016.</li> <li>+ <b>Workshop on SCI LAB and Maxima (FOSS)</b> for B.Sc II semester, conducted by Maharani College Mathematics Department during 9<sup>th</sup> -10<sup>th</sup> January 2015.</li> <li>+ <b>Workshop on SCI LAB and Maxima (FOSS)</b> for B.Sc III semester conducted by M.E.S College, Mathematics Department during 10<sup>th</sup>-11<sup>th</sup> July 2015.</li> <li>+ <b>Workshop on SCI LAB and Maxima (FOSS)</b> for B.Sc V semester, conducted by Central College BU, Mathematics Department during 22<sup>nd</sup> - 23<sup>rd</sup> July 2016.</li> <li>+ <b>Workshop on LATEX and LATEX BEAMER</b> conducted by Bangalore University for M.Sc Mathematics faculty during 15<sup>th</sup> -16<sup>th</sup> February 2016.</li> <li>+ Faculty Development program on <b>Theory and Applications of Mathematical Modeling in engineering</b> conducted during 26<sup>th</sup> to 30<sup>th</sup> July 2016.</li> </ul>
OERs	<ul style="list-style-type: none"> <li>+ Element 14, ADENO-UNO software, Keel software, Raspberry and Meed software.</li> </ul>

**c) Percentage of faculty**

\* invited as resource persons in Workshops / Seminars / Conferences organized by external professional agencies

**Table 56: percentage of faculty invited as resource persons**

Invited as resource person	2012-13	2013-14	2014-15	2015-16	2016-17
TOCS	5	7	9	11	10
Other College	13	15	13.5	15	8
University	4	4.81	3	4	3

\*participated in external Workshops / Seminars / Conferences recognized by national/international professional bodies

**Table 57: Faculty participation details**

Awards/recognition	2012-13	2013-14	2014-15	2015-16	2016-17
State Level	46	41	32	39	13
National level	22	33	43	31	19
International level	5	1	5	7	5

\* presented papers in Workshops / Seminars / Conferences conducted or recognized by professional agencies

**Table 58: Total number of workshops**

Paper presentation at	2012-13	2013-14	2014-15	2015-16	2016-17
State Level	10	6	6	3	5
National level	23	45	26	39	5
International level	8	2	12	8	3

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

The Institution extends the following support to recharge the faculty.

- ✚ Financial support is provided for participating in conferences, seminars, workshops and training programs to be equally apportioned among participating faculties.
- ✚ Relieves faculty of their duties to enable them to attend orientation, refresher and other upgradation programs.
- ✚ Provides study leave for higher studies.
- ✚ Allocates fund for research in the Department budget. Encourages faculty to procure funding from various external government agencies.
- ✚ Encourages consultancy services to strengthen industry institute interface.

Following table shows the leave details of the faculty for higher education and money given for conference

**Table 59: Leave details for higher education**

Sl No	Name of the Faculty	Department	Purpose of leave	Duration of leave	Financial Support	Year
1	Mr. Yogesh	Microbiology	PhD	2 weeks	TOCS	2014
2	Ms. Indu	FAD	PhD	3Months	TOCS	2015
3	Mr. Bhanuprakash	Biochemistry	PhD	2 weeks	TOCS	2015
4	Mr. Shivaji	Biotechnology	PhD	2 weeks	TOCS	2014
5	Ms. Shanthala	Physics	PhD	2Weeks	TOCS	2013
6	Mr. Joy Hoskeri	Biotechnology	PhD	2 weeks	TOCS	2012
7	Ms. Shruthi	Biotechnology	PhD	1 week	TOCS	2011

**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.**

The College religiously recognizes the talent in the faculty and accordingly acknowledges and appreciates their performance during teacher's day celebration that in turn motivates the faculty to contribute much more to their profession. The following faculty have received awards from various agencies.

**Table 60: Awards & recognition**

Sl no	Name of the faculty	Department	Award	Recognizing organisation	Year
1	Dr. Bharathi S	Microbiology	SMYSR -Young Scientist (women)	Vision Group on Science and tech Gov Karnataka	2012-13
2	Dr. R Kavyashree	Biotechnology	Fellow of Society of Applied Biotechnologists (FSAB)	by Society of Applied Biotechnologists	2010
			Jnana Fellowship	by Karnataka Knowledge Commission, Government of Karnataka, organised by Faculty of Medicine and the Institute of Indigenous medicine, University of Colombo, Colombo, Sri Lanka	2011
			Young Scientist Award	by Karnataka Knowledge Commission, Government of Karnataka, organised by Faculty of Medicine and the Institute of Indigenous medicine, University of Colombo, Colombo, Sri Lanka	2012
			SMYSR Award	Vision Group of Science & Technology, Government of Karnataka	2012
4.	Dr. A Vedamurthy	Biotechnology	The Best Teacher Award	College Level	2011
5	Ms.Usha Ballakoor	Chemistry	Award for Best library User	College Level	2013-14

			Best teacher		2014
6	Mr.Bhanuprakash	Biochemistry	Award for Best library User	College Level	2012-13
7	Ms.Akshatha S	Chemistry	Award for Best library User	College Level	2015-16
8	Dr. Ashok	Genetics	Award for Best library User	College Level	2015-16
9	Dr. Abdul Nayeem	Biotechnology	Punctual teacher of the year	College Level	2014
10	Dr.Arпита Kundu	Genetics	Punctual teacher of the year	College Level	2014
11	Pavana Kamanth	Genetics	Punctual teacher of the year	College Level	2014
12	Dr. Elsamma Thomas V	Mathematics	Faculty of Science	Bangalore University	2015
13	Dr.Narayana Swamy	FAD	Dr.Triguna Charan Sen Prize	Institution of Engineers	2016

**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?**

Yes, the institution has introduced and implemented the feedback mechanisms for evaluation of faculty by the students to improve the quality of teaching learning process.

The College has introduced online 360-degree feedback from 2016. The results are analyzed by IQAC and relevant recommendations are made to the management. The faculty are advised on their shortcomings one on one basis by their superiors

Based on the feedback, customized Faculty development programs are conducted to hone the skills in teaching

- ✚ Soft skill training is arranged in the campus to groom their etiquettes
- ✚ Fresher's are counseled and guided to handle students efficiently.

**2.5. Evaluation Process and Reforms**

**2.5.1 How does the institution ensure that the stake holders of the institution especially students and faculty are aware of the Evaluation process?**

Evaluation is the pivot of educational system which ascertains the extent of the aims and objectives achieved in teaching learning process.

- ✚ Evaluation process is communicated to the students during the orientation program by the Dean- Academics.
- ✚ The students are given the complete academic program in almanac which includes academic calendar, lesson plans, internal examination schedule, time table, list of holidays and other important dates at the beginning of the semester.
- ✚ Any changes in the schedule or process is communicated by the principal to the students.
- ✚ All relevant information and updates received from the University are communicated to all the stakeholders and a copy is put up on the notice board.
- ✚ The parents are briefed about the evaluation methods followed in each discipline during the parent-teacher meet conducted every year and the campus management system.

### 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?

#### Effective Implementation of the Evaluation Reforms of the University

- ✚ Being affiliated to Bangalore University, The Oxford College of Science has been adhering to its evaluation system, examination schedules and policies laid down by the University. The College tries to make its assessment system as flexible as possible, within the limits laid out by the University under the supervision of Dean Academic and Dean-Examinations
- ✚ Choice based credit system is introduced from 2014. Co-curricular activities have been made part of evaluation system.
- ✚ The following are the parameters for CCE
  - Two internal tests conducted in each semester
  - Monthly and Semester attendance
  - Active participation in theory and practical classes
  - Seminar presentation
  - Assignments etc.

#### Evaluation reforms that are initiated by the College

- ✚ The internal evaluation processes are automated through Campus management system. Faculty enter attendance and marks of the students regularly.
- ✚ Online MCQ is introduced.

### 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?

- ✚ Dean-Examination monitors the process of conducting examination.
- ✚ Internal assessment is a continuous evaluation process involving unit / surprise test, presentation, open book test spread throughout the semester where the performance of the student is tracked regularly.
- ✚ Online MCQ is introduced from the year 2016 for internal assessment.
- ✚ The regularity of the students in academic activities is ensured by making attendance as an integral component of the internal evaluation, thereby making 85% attendance

cut off to appear for University examinations. The students with 100% attendance are rewarded suitably.

- ✚ Internal assessment results are displayed on the College notice board for verification.
- ✚ Result analysis is conducted by the Dean-Examination and the reports are shared with the individual Departments.
- ✚ The Dean-Examination orients the faculty about the reforms in the examination process.
- ✚ IQAC monitors and ensures the effective implementation of evaluation reforms.

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

**Formative Assessment**

- ✚ Online MCQ was introduced for formative assessment from 2016.
- ✚ Formative assessment mechanisms include conducting regular class tests, open book tests, internal tests, encouraging students to think, problem based learning, enrichment programs, undertaking independent research projects, making presentations on Power point, group discussions, quiz, writing assignments etc.
- ✚ These formative bases also are summated to lead into the internal assessment component of the students' performance. As such under the Bangalore University system, 30% marks of the total have been allotted for Internal Assessment per paper in each Program. Of these, 10% marks have been kept for class tests and 10% for assignments, 5% is given to attendance, 5 % for seminars.
- ✚ As a result of the above practices number of University ranks and overall results have steeply increased. For details please refer question 2.6.2

**Summative Assessment**

- ✚ The College conducts semester exams twice a year as per the University regulations. The result is available in the University website.

**2.5.5 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.)**

- ✚ The evaluated answer scripts (blue books) are shown to each and every student and discussed in detail before marks are frozen. Exam data is also available in the campus management system.
- ✚ Internal Assessment marks are displayed on the notice board and uploaded in the campus management system.
- ✚ Equal weightage is given to various co-curricular activities which in turn enhances the overall development of the student.

- ✚ The Internal Assessment data generated by various Departments is verified by IQAC which can be easily approached by the students in case of any problem/query.

**2.5.6 What are the graduates attributes specified by the College/ affiliating University?  
How does the College ensure the attainment of these by the students?**

The College's vision, and distinctive ethos have developed over more than three decades emphasizes the holistic development and believes that academic excellence has to be complemented with extra-curricular achievement, a well-developed sense of civic responsibility, individual initiative and a desire for innovation.

**Table 61: Graduate Attributes and Institutional efforts**

Sl.No.	Graduate Attributes	Institutional Efforts
1.	Acquiring Subject Knowledge in respective discipline of study	Teaching-Learning Process in different streams of Science with various subjects' combinations adopted.
2.	Critical analysis, problem solving, and creative thinking	PBL, journal club activities, group discussions, encouraging UG and PG students to participate in student research projects
3.	Communication skills	Vocabulary building through WORDSWORTH software, soft skills training, presentation on various topics.
4.	Developing organization ability	In Various events like College fest, conferences, seminars, national festivals, commemoration of important days, human rights activities, NSS activities, Eco club activities conducted in the institution, students are given major responsibilities
5.	Encouraging reading habits	Library facility, journal clubs, extended library hour, essay writing competitions etc.
6.	Effective use of ICT	Class rooms are equipped with Smart boards, LCD projectors, virtual labs, apps based learning, library with INFLIBNET, DELNET, wi-fi campus
7.	Education and Employability	Add-on courses, skill development courses
9.	Entrepreneurship Skills	Entrepreneurship development cell(EDC) has been introduced. Add-on course and enrichment programs introduced in the Department will enhance the entrepreneurship skills. College has also applied for Incubation center.

10	Environmental Awareness	Eco club conducts various activities on a regular basis
11.	Familiarizing Moral and Ethical values	Students are encouraged to follow moral and ethical values in their life by conducting programs from various spiritual personalities from Ramkrishna mission and other related organizations, celebrating birth anniversary / programs of eminent personalities.
12.	Joining Higher Courses	Coaching for CSIR-NET/GATE is provided by the institution which helps the students to pursue higher education. Recommendations are provided for overseas admissions. The students are well informed about all the fellowships to pursue their higher studies.
13	Knowledge of Social responsibility	The College has NSS and NCC units which conducts many activities like serving of villages, visiting and helping the orphanage and old age home, free blood check up and blood donation camp, free eye care and donation camp, health awareness campus, help openness to diversity, empathy, solidarity and humanness.

### 2.5.7 What are the mechanisms for redressal of grievances with reference to evaluation both at the College and University level?

The redressal of grievances regarding evaluation in both internal assessment and University examination are

- ✚ Internal Assessment marks/grades are communicated to the student, providing space for interaction.
- ✚ Every assignment and answer script is discussed with students after valuation, and grievances if any are addressed suitably.
- ✚ Department Head, IQAC and the Principal can be approached by students who have any concerns regarding their grades. All such grievances are promptly addressed.
- ✚ University examinations - Students can apply for revaluation within 10 days of the announcement of the results and also have the provision for applying for photocopies of their answer scripts from the University after the announcement of results.

### 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?



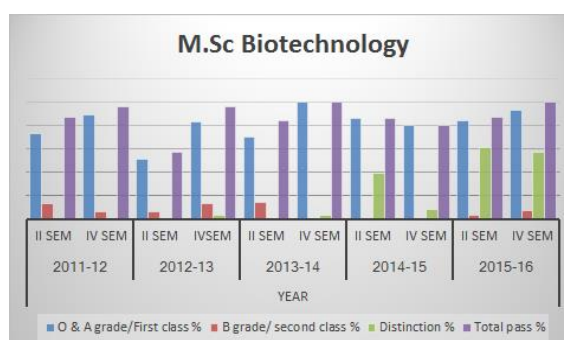
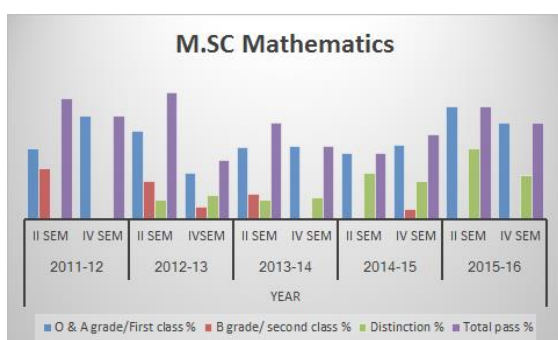
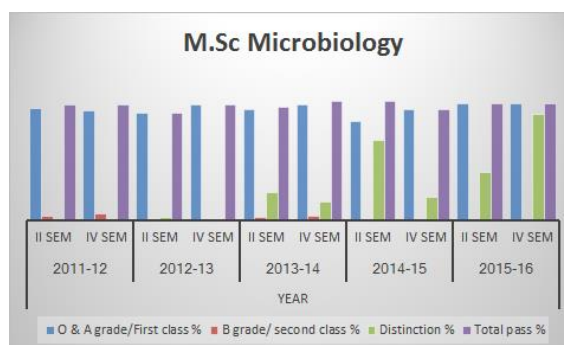
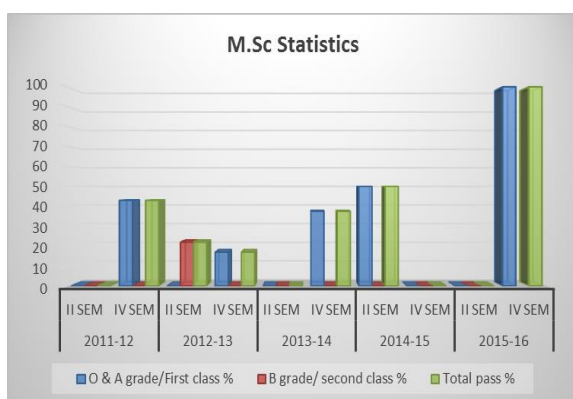
The College with a vision of nurturing intellectual growth and sound value systems in students through science education and having set its mission to realize the empowering and ennobling aims of education through scientific knowledge and research clearly states the learning outcomes. This has enabled teaching-learning process streamlined in an identifiable direction where emphasis is on holistic development of the student.

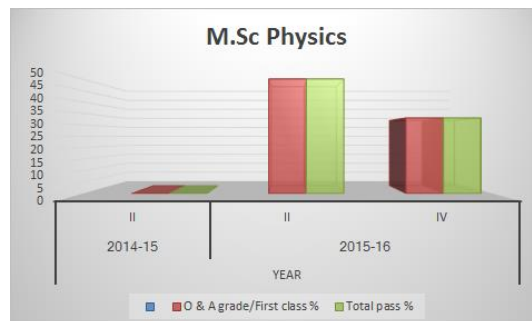
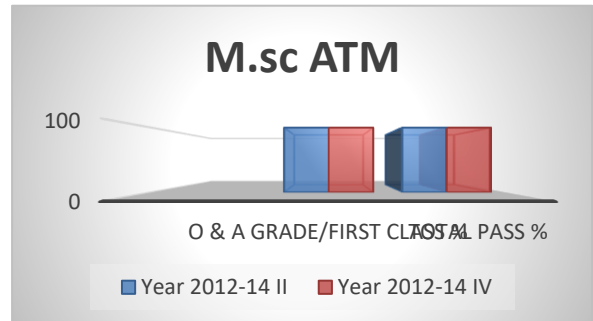
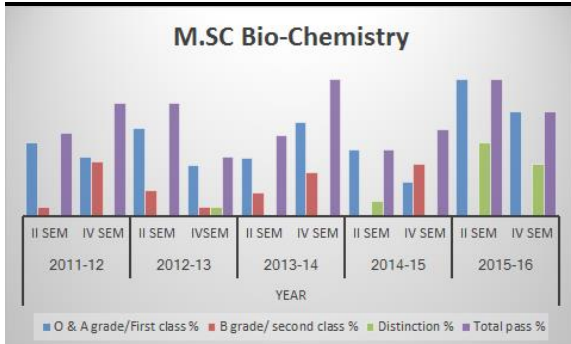
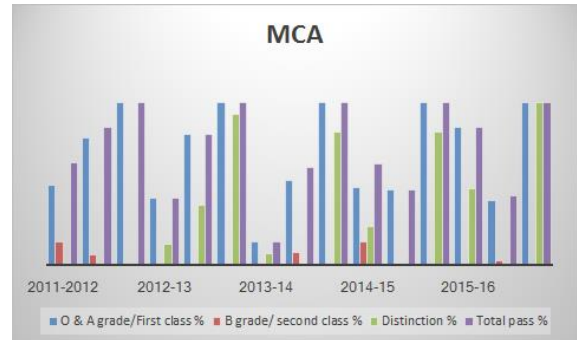
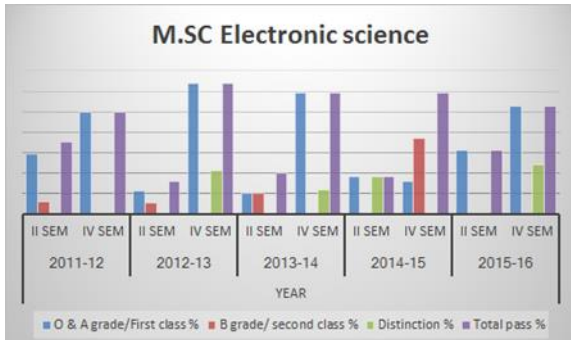
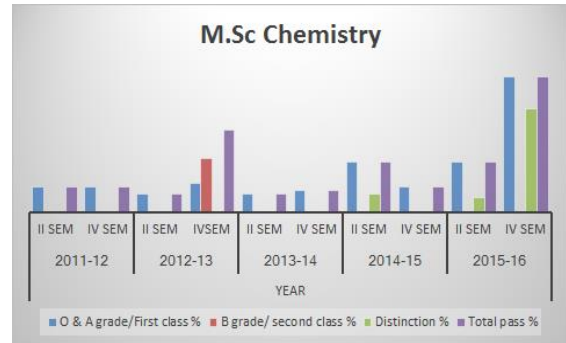
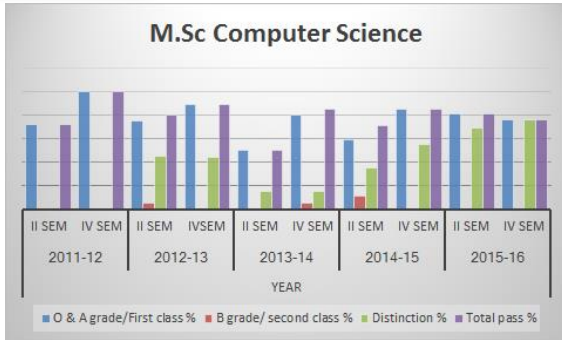
- ✚ Students are made aware of the vision and mission of the College and expected learning outcomes through the information available in the College website, the corridors and the prospectus. It is also discussed during orientation.
- ✚ Orientation is also taken for the teaching fraternity by the HoD and the Principal.

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

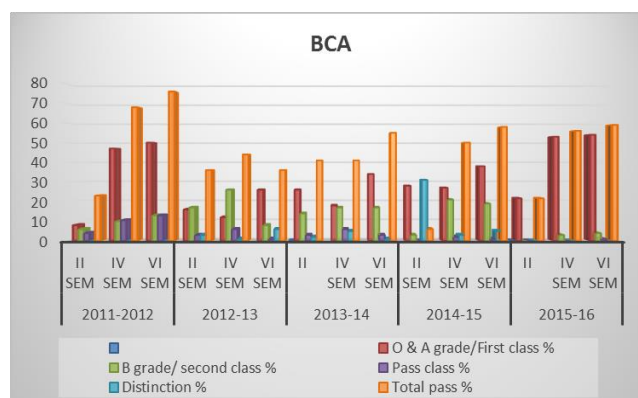
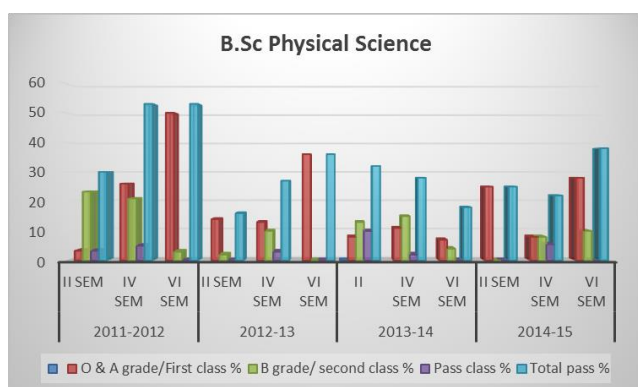
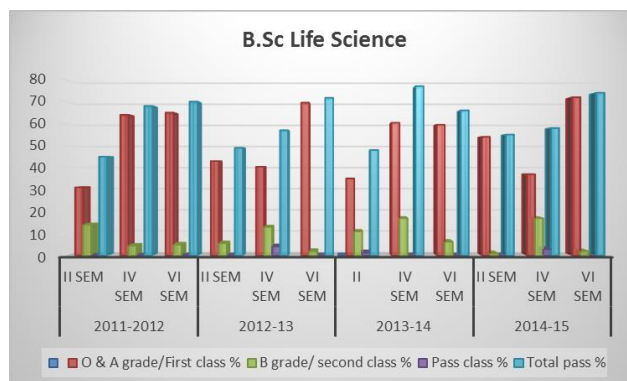
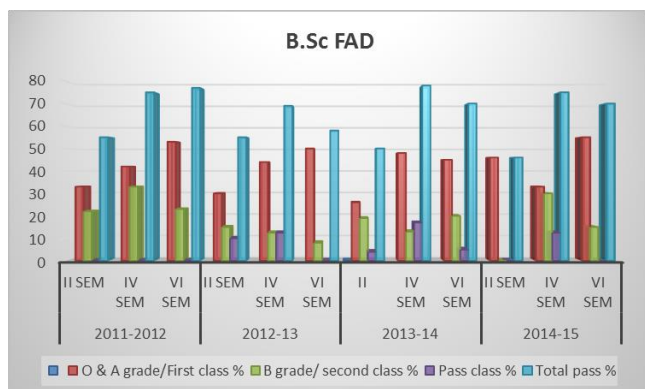
- ✚ Performance is monitored through CCE, Viz, internal assessment, attendance, participation in co-curricular and extra-curricular activities, seminars, assignments and University results.
- ✚ Internal assessment results are uploaded in the campus management system.
- ✚ University results are available in the University website.
- ✚ Exclusive boards are maintained to display the details of University rank holders in a prominent place.

**ANALYSIS OF PG STUDENT RESULTS**





### ANALYSIS OF UG STUDENT RESULTS:



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

Having set teaching-learning outcomes to serve as objectives and as benchmarks, College has introduced new techniques and innovative programs to facilitate the achievement of the intended learning outcome by devising pedagogical strategies towards them. This process is specific to the needs of the disciplines, and so takes place primarily in the Departments.

The objectives are

- ✚ Preparation of well defined academic calendar every year with stipulated timeframe for each activity
- ✚ Well defined internal assessment mechanism with MCQ being introduced from year 2016
- ✚ Upgradation of faculty with academic and innovative thoughts
- ✚ Extend support for classroom & practical teaching through student enrichment programs that helps in innovative outcomes.
- ✚ Enabling innovative teaching by furnishing systemic and infrastructural support
- ✚ Result analysis and subsequent corrective actions
- ✚ Remedial coaching for slow learners and support for advanced learner, student research projects, entrepreneur and skill development program
- ✚ Extensive pre-placement training and career guidance

#### 2.6.4 What are the measures/initiatives taken up by the institution to enhance the social and economic relevance (student placements, entrepreneurship, innovation and research aptitude developed among students etc.) of the courses offered?

The following measures/initiatives have been taken up by the institution to enhance the social and economic relevance of the courses.

- ✦ Undergraduate and Postgraduate students are encouraged to participate in student research projects. Some of the research projects are carried out in collaboration with research agencies and institutions
- ✦ Besides the curriculum, Department of Electronics, Physics, Microbiology, Biochemistry and Genetics are the recipient of the student research project under SPiCE program.
- ✦ The College has also received various funding such as K-FIST and SMYSR from VGST, Govt. of Karnataka, WOS-A from DST and minor research projects from UGC New Delhi.
- ✦ Career guidance cell regularly invites industry personnel to conduct workshop.
- ✦ Psychometric analysis is introduced from 2016.
- ✦ 7<sup>th</sup> Sense Talent training programe is given to students to improve their aptitude and groom them as industry ready
- ✦ The College is also recognized and funded under centre for Innovative in Science Education (CISE) by VGST, GoK
- ✦ Add-on courses are introduced
- ✦ The College has a practice of hosting a National conference like Jnanarjana, CTCS etc every year. This gathering is an amalgamation of academicians, scientists, Industrialists and students which gives comprehensive insight into the latest technology, Research and Innovation.
- ✦ Community engagement through NSS

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

The College collects and analyzes the data on student's performance in multiple ways. Some are listed below:

- ✦ **Internal assessment (formal record of the performance of a student in practical sessions, seminars, class tests and attendance) is collected from each Department by Dean-Examination. The detailed analysed report is discussed in the Annual strategic meet and suitable measures are adopted for the betterment. The toppers in each stream are rewarded suitably**
- ✦ Informal assessment by the faculty during course hours
- ✦ IQAC monitors the analysis and timely completion of examination as per examination schedule

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

As mentioned in question 2.6.1, 2.6.3 and 2.6.5 the learning outcomes get reflected through the student performance in various activities along with the end semester University exam results. The institution monitors the learning outcomes through the following achievements.

- ✚ The faculty in every subject keeps the record of each student in the form of attendance, test scores, assignments and practical performance.
- ✚ The students participate in extra-curricular and co-curricular activities. The respective faculty coordinators keep record of these students and guide/train meticulously.
- ✚ Slow learners are identified. Remedial classes and counselling sessions are conducted.
- ✚ While awarding IA marks for Co-curricular activities the students are monitored on their overall performance.

**2.6.7 Does the institution and individual teachers use assessment/ evaluation outcomes 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.**

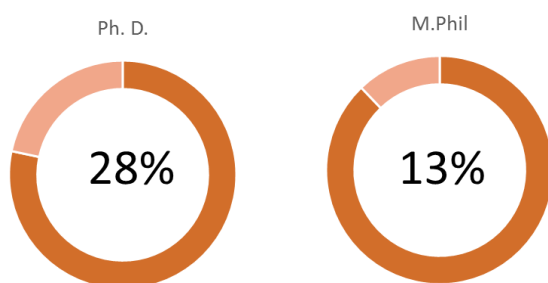
Yes, the faculty in the College uses evaluation outcomes of the students as an indicator for evaluating student performance.

- ✚ Separate rubrics is used for evaluation in lab, assessment rubrics is used for co-curricular and extra-curricular activities
- ✚ Dean-Examination reviews and monitors the result of every student
- ✚ Feedback from the students about the teaching learning process is considered to improve the same
- ✚ To make teaching/learning effective and enjoyable, a combination of traditional and innovative method is practiced, depending on the requirement of the subject and the mental ability of the learners and making changes according to the latest developments in all the subjects
- ✚ The evaluation processes are transparent, student-friendly and reliable
- ✚ Remedial coaching is conducted for slow learners while advanced learners are benefitted through research participations and much more

## CRITERION III: RESEARCH, CONSULTANCY AND EXTENSION

### 3.1 Promotion of Research

The Oxford College of Science is committed to achieving excellence in research by fostering research culture among its faculty and student community.



Out of 94 faculty members in the College with Masters Degree, 26 faculty members are having Ph.D. degree in their respective areas of specialization while 13 are M. Phil. qualified.

The College has provided conducive environment for promotion of research and has taken several measures to encourage research activities in the campus such as:

- ✚ State-of-the-art laboratories and library with e-resources such as INFLIBNET and DELNET
- ✚ Encouraging faculty and students to seek funding for research projects.
- ✚ Both UG and PG students are encouraged to undertake short term in-house research projects.
- ✚ Allocation of separate budget for research work
- ✚ Conducting workshops, seminars and conferences regularly
- ✚ Incentives to faculty for publishing research articles

#### 3.1.1 Does the institution have recognized research center/s of the affiliating University or any other agency/organization?

Yes, The Oxford College of Science is a recognised **Research Center by Bangalore University** for carrying out research leading to award of Ph.D. degree in P.G. Departments of Biotechnology, Microbiology, Biochemistry and Computer science & Application. The College is also recognized by UGC under 2 (f) and 12 (B).

#### 3.1.2 Does the Institution have a research committee to monitor and address the issues of research? If so, what is its composition? Mention a few recommendations made by the committee for implementation and their impact.

**Table 62: Research Committee members**

Sl no	Name	Designation
1	Principal	Chairman
2	Vice Principals	Members

3	Heads of all PG Departments	Members
4	Senior faculty representatives from all PG Departments	Members
5	Dean-R&D	Member Secretary

Apart from the above committee, the College has Research Advisory Committee (RAC) comprising of external experts from academia and industry to advice and enlighten the faculty members to take the Research Center in right and progressive direction. The RAC has following members:

**Table 63: Research Advisory Committee members**

Sl no	Name	Designation
1	Dr. K. Manjunath Professor and Chairman, Department of Microbiology & Biotechnology Bangalore University, Bengaluru	Chairman
2	Dr. M. S. Sheshshayee Associate Professor, Department of Crop Physiology University of Agricultural Sciences, GKVK, Bengaluru	Member
3	Dr. Dipshikha Chakravorty Associate Professor, Centre for Infectious Diseases Research (CIDR) Dept of Microbiology and Cell Biology (MCB), Indian Institute of Science (IISc), Bengaluru	Member
4	Dr. Mythili, J.B. Principal Scientist, Division of Biotechnology, ICAR-IIHR, Bengaluru	Member
5	Dr. Venkatesh Krishnamurthy Research Director, Genotypic Technology Pvt. Ltd. Bengaluru	Member

The following recommendations which have been suggested by the committee were discussed with Management and the same are being considered for implementation periodically.

- ✚ To develop research culture among both faculty and students.
- ✚ To encourage faculty members to publish more peer reviewed research papers.
- ✚ To seek collaboration with industries and research labs for carrying out research.
- ✚ To disseminate information about research grants available.
- ✚ Timely monitoring of the students' in-house projects through presentations
- ✚ Submission of final project reports to the respective Departments as a source of reference copy and enabling the access of the same to other students for reference purpose
- ✚ Best project of the year and best research paper of the year award has to be planned to promote a healthy competition among the students.
- ✚ To conduct workshops for faculty and students to train them in writing research proposals.
- ✚ To provide interaction with eminent professionals of national research institutions to keep abreast with the latest developments in the field of science.

The above recommendations greatly helped the College in applying and securing more funds from state and national funding agencies for carrying out research projects, improving instrumentation facility, organizing FDP's and lecture workshops. The above recommendations also resulted in improving research culture among staff and students and establishing more research collaborations. Also, in house research projects for UG and PG students in collaboration with other sister institutions have been introduced.

Funds obtained in the last five years and MoUs signed:

- ✚ Research funds securing from various funding agencies: 160.65 Lakh (Refer Annexure 3.2.7 )
- ✚ MoUs signed: 22 (Refer Annexure 3.7.2)

### **3.1.3 What are the measures taken by the institution to facilitate smooth progress and implementation of research schemes/ projects?**

#### **✚ Autonomy to the Principal Investigator (PI)**

The Principal Investigator is given full autonomy regarding expenditure, purchase of equipment, travel and other aspects related to the research project.

#### **✚ Timely availability or release of resources**

For facilitating smooth progress of research projects, a separate bank account 'The Oxford College of Science (Research)' has been opened to receive the grants from the funding agencies. This account is jointly operated by the Principal of the College and member secretary of purchase committee, therefore there is no delay in the availability of resources as per requirements of funding agencies.

#### **✚ Adequate infrastructure and human resources**

All the labs are state-of-the-art and houses all the necessary resources and equipments needed for research. Any specialized equipment which may be required for any research projects are usually procured by utilising project funds. The College has Central Instrumentation Facility developed by using the BTFS Program and CISEE Program of GoK and houses all the sophisticated equipments required to carry out advanced life science research. This facility is upgraded and maintained with the help of Management and is available to all the faculty and students who are involved in research.

Computer labs and library facilities with INFLIBNET, DELNET are made fully available to the research personnel. Administrative and technical support is also provided to the research personnels whenever required.

#### **✚ Time-off, reduced teaching load, special leave etc. to teachers**

The faculty involved in research activities by way of projects funded by state or national funding agencies are considered for reduced work load as per the recommendation of the concerned Heads of Department. Compensatory off is in place if the research personnels are working on Sundays and government holidays with prior approval of Heads of Department. Special leave and OOD are also



granted for doctoral research and other research activities such as participating in conferences, attending training programs as applicable under University rules.

**✚ Support in terms of technology and information needs**

The College has state-of-the-art computer labs with LAN and internet connectivity. In addition, each Department as well as the library also has computers with internet connectivity. UGC-INFLIBNET, DELNET and IEEE facility has been made available to research personnels where a number of research journals, data bases, e-journals and e-books are accessible. Administrative and technical support is also provided to the research personnels as and when required. The laboratory and library facilities of other sister concern Colleges is also extended to research activities if required.

**✚ Facilitate timely auditing and submission of utilization certificate to the funding authorities**

The College has a dedicated Accounts Department that extends the required support to Principal Investigators of projects in preparing audit reports and timely submission of utilization certificate to funding agencies. Apart from this, an internal audit is done for all the projects from the Management at the end of each financial year.

**✚ Any other**

Principal Investigators of projects are responsible for making decisions on procurement of equipments. Purchase committee is set up to oversee the procurement of equipments. Evaluation of the Department or individual faculty member is done on the basis of research contribution as well.

**3.1.4 What are the efforts made by the institution in developing scientific temper and research culture and aptitude among students?**

- ✚ One of the prime objectives of the College is to develop scientific temper, to promote research culture and to nurture research aptitude among students and teachers.
- ✚ The College has made continuous efforts to create the necessary infrastructure in the form of well equipped labs, state-of-the-art library and computer labs.
- ✚ The College encourages more in-house student projects to all the science Departments including those where projects are not part of the curriculum. The College conducts project presentations during the project tenure to ensure that the students are doing projects in the right direction.

✚ The College facilitates and encourages students to collaborate with Universities and National institutes for carrying out some aspects of their research work.

The College encourages more in-house student projects to all the Science Departments including those where projects are not part of the curriculum. The College conducts project presentations during the project tenure to ensure that the students are doing projects in the right direction.

✚ Submission of final project reports to the respective Departments as a source of reference copy and enabling the access of the same to other students for reference purpose.

✚ The faculty and students are encouraged to publish the research work in the peer reviewed research journals.

✚ The College has taken initiative to publish a research journal in 2017.

✚ The College has MoUs with various industries and institutes for placing students as interns as well as for collaborative research.

✚ The College conducts Jnanarjana - an annual national level conference and provides a platform to researchers in and around India to show case their research achievements, wherein College students have opportunity to present articles related to their original research work.

✚ The College encourages and promotes inter-disciplinary teaching and research, also through its sister institutions.

✚ The College encourages the Departments to conduct seminars and workshops to keep the faculty and students updated on recent developments in the field of science and research.

**3.1.5 Give details of the faculty involvement in active research (Guiding student research, leading Research Projects, engaged in individual/collaborative research activity, etc.)**

The College strives to enhance the research culture in all its Departments. Every faculty is encouraged to engage in research activities and is supported in planning and executing research projects. The faculty is enthusiastically applying and procuring research grants from various funding agencies. The projects are completed in time, reports are submitted and the findings are published. The faculty of College serves as research supervisor to various Universities and many are having collaboration with various research labs as mentioned below:

**Table 64: Details of the faculty involvement in active research**

Sl. No.	Name of faculty	Recognised as guide	Research Projects
1	Dr. Kavyashree	Bangalore University, Bengaluru (Official correspondance awaited)	VGST SPiCE VGST-SMYSR KKC-JF KKC-JS DST WOS-A DST-FIST

2	Dr. Bharathi S	Karpagam Deemed University, Tamil Nadu.	VGST-SMYSR
		Bharathidasan University, Tamil Nadu	
3	Dr Sangita Roy	Bangalore University, Bengaluru	VGST K-FIST VGST SPiCE
		PRIST University Tamil Nadu	
4	Dr. Abdul Nayeem	-	VGST CISEE
5	Mrs. Raji Sukumar	Bharathiar University, Tamil Nadu	-
6	Dr. Yogesh	Bharathidasan University, Tamil Nadu	-
7	Dr. Pramod T	PRIST University Tamil Nadu	UGC-Minor Research Project
8	Dr. Prakash P	-	UGC-Minor Research Project VGST SPiCE
9	Ms. Deepthi V	-	VGST SPiCE
10	Ms. Satya Veena	-	VGST SPiCE
11	Ms. Shanthala V	-	VGST SPiCE
12	Dr. Venkatesh V	-	UGC-Minor Research Project
13	Dr. Vedamurthy AB	JNTU, Hyderabad Bharathidasan University, Periyar University, Karpagam Deemed University, Tamil Nadu	VGST CISEE
14	Dr. Sam Balu	-	VGST SPiCE
15	Ms. Sonhita Chel	-	VGST SPiCE
16	Dr. Meenakumari	Anna University, Tamil Nadu	-
		Jain University, Bengaluru	
		Bharathiyar University, Tamil Nadu	

Table 64a: Details of collaborative research

Sl. No.	Name of faculty	Details of collaborative research
1.	Dr. Kavyashree R.	Bangalore University The Oxford Dental College
2.	Dr. Abdul Nayeem	IIHR, Bangalore
3.	Dr. Shivaji B.	Nargund College of Pharmacy
4.	Dr. Bharathi S	NIMHANS, NDRI, Seri Biotech, KC Das, The Oxford Dental College, The Oxford College of

		Pharmacy, The Oxford College of Hotel Management Bangalore. IICPT, Karpagam University, Bharathiar University, Tamil Nadu.
5.	Mrs.Raji Sukumar	Azymes Bioscience, Bangalore and Centre for Excellence, Mysore University
6.	Mrs.Pavana Kamath P.	Azymes Bioscience, Bangalore
7.	Mr. Punith	NIANP, Bangalore
8.	Dr. Rajeshwari	Bangalore University
9.	Dr. Vedamurthy A.B.	Bangalore University
10.	Mr. Badrinath	Jain University, Bangalore
11.	Dr. Raghavendra	NIANP, Bangalore
12.	Dr. Sam Balu	NIMHANS, Bangalore

**3.1.6 Give details of workshops/ training programs/sensitization programs conducted/organized by the institution with focus on capacity building in terms of research and imbibing research culture among the staff and students.**

The College encourages research and organizes various academic seminars/ conferences/workshops with the financial assistance of national and state bodies and with Management's support. The following workshops and training programs have been conducted that has provided an opportunity to our faculty and students to interact with subject experts and update their knowledge, thereby inculcating research culture and engage in active research.

**Table 65: Details of Workshops conducted**

Name of faculty/ Department	Title of workshops	Funding agency	Date
Dr. Bharathi S Department of Microbiology	Genetically Modified Organisms – Pros and Cons	Indian Academy of Sciences, Bengaluru	3rd - 4th, March 2016
Dr. Raghavendra Department of Biotechnology	FDP on Advances in in-vitro Cell culture and Functional Applications	Department of Biotechnology (DBT), New Delhi	6th -10th , July 2015
Mr Bhanuprakash Department of Biochemistry	Sandwich ELISA	Management	22nd May, 2015
Department of Chemistry in association with Creative Memory- Mind Smart	Mindsmart	Management	14th March 2015

Department of Chemistry in association with Sigma Aldrich	Laboratory Safety	Management	21st October 2014
Ms. Bharati V, Department of Chemistry	Instrumentation and application of UV Spectrophotometer	Management	9th September, 2014
Department of Physics	Measurement of Radiation by Giger Mullar Counter	Management	30th August-1st September, 2014
Dr. Kavyashree R Department of Biotechnology	Research Proposal Writing	Department of Science and Technology (DST), New Delhi	31st October, 2014
Dr. Meenakumari Department of Computer Science	WC-2599 -PHP and MySQL	Spoken Tutorials, IIT Bombay	15th May, 2014
Dr. Meenakumari Department of Computer Science	WC-2600 -Java	Spoken Tutorials, IIT Bombay	15th May, 2014
Mrs.Pavana Kamath P. Department of Genetics	Cytogenetics technique	Management	2nd August 2014
Mrs.Raji Sukumar Department of Genetics	Diagnostic Immunology	Management	18th July 2014
Mrs.Raji Sukumar and Mrs.Pavana Kamath P. Department of Genetics	Hematology	Management	14th – 24th February 2014
Department of Biochemistry	PCR, A glimpse on DNA Amplification	Management in association with Eppendorf, India	8th January, 2013
Department of Microbiology in association with Aristogene, Bengaluru	FDP on Immuno molecular diagnostics and DNA amplification	VGST, GoK	9th January - 8th February, 2013
Dr. Meenakumari Department of Computer Science	WC-2600 -PHP and MySQL	Spoken Tutorials, IIT Bombay	3rd September, 2013
Dr. Meenakumari Department of Computer Science	WC-3505- PHP and MySQL	Spoken Tutorials, IIT Bombay	9th -10th May, 2013

Dr. Bharathi S Department of Microbiology	Hypothetical testing and SPSS	Management	11th May, 2013
Ms. Devika Bai, Department of Chemistry	Thin Layer Chromatography: Seperation of Organic Compound	Management	31st December 2013
Department of Biochemistry in association with IKA India Pvt Ltd	Phytochemical extraction methods and analysis	Management	5th October, 2012
Dr Prakash P Department of Biochemistry	Techniques on Column Chromatography	Management	13th November, 2011

**Table 66: Details of training programs conducted**

Sl. no.	Name of faculty/ Department	Title of workshops/ training programs	Funding agency	Date
1	Department of Microbiology	Viral Cell Culture Techniques	The Oxford Society of Microbiology	19th February, 2016
2	Department of Genetics in association with Medgenome, Bengaluru	FISH and identification of human chromosomes	Management	25th February, 2016
3	Dr. Arpita Kundu Department of Genetics	Learning the modules of protein modeling and drug designing	Management	24th April, 2016
4	Mrs. Gayathri Sudhir Department of Electronics	PIC microcontroller	Management	21st September, 2016
5	Department of Biotechnology	Modern Biotechnological Techniques	The Oxford Biotechnologist's Society, Bengaluru	2015 and 15th March 2016
6	Department of Biotechnology	rDNA technology	The Oxford Biotechnologist's Society, Bengaluru	6th November 2015 and 2016
7	Department of Microbiology	Molecular diagnostics	Management	6th November 2015

8	Department of Genetics in association with Medgenome, Bengaluru	Lymphocyte culture and identification of human chromosomes	Management funded	7th November 2015
9	Department of Genetics in association with HCG, Bengaluru	Identification of human chromosomes and case study	Management funded	17th January, 2015
10	Mrs Gayathri Sudhir Department of Electronics	Introduction to Verilog	Management funded with Jyothi Nivas College	21st -22nd December 2015
11	Department of Microbiology	Microbial World-Friends and Foes	The Oxford Society of Microbiology	25th August 2011 and 30th June 2015
12	Department of Microbiology	Food Microbiology and Food Safety Management	The Oxford Society of Microbiology	28th August 2012 and 27th February 2015
13	M Jayapragash Department of Computer Science	Current Technology	USB Organization	11th February, 2014
14	Ramakrishna reddy and Ramesh Babu, Department of Computer Science	Hadoop	Lara Technologies by Mr. Ramesh	6th August, 2014
15	Mr. Riyaz Akther Department of Genetics	Karyotyping-identification of human chromosomes and chromosomal aberrations	Management funded	13th March 2014
16	Dr. Arpita Kundu Department of Applied Genetics	Hands on practicals on Bioinformatics	Management funded	15th February, 2014
17	Vinita Tapaskar Department of Computer Science	PHP	Mr. Navaneetha Krishnan & Raju	9th March, 2013
18	Mrs.Pavana Kamath P. Department of Applied Genetics	Temporary Slide Preparation of Mitosis and Identification of Mitotic Stages	Management funded	17th September, 2013

**Table 67: Details of sensitization programs conducted**

Sl. no.	Name of faculty/ Department	Title of workshops/ training programs	Funding agency	Date
1	Department of Physics	National science day	Management	1st March, 2015
2	Dr. Kavyashree R Department of Biotechnology	SEC Meeting for selecting WOS-A scheme applicants	DST, New Delhi.	30-31st December, 2014
3	The Oxford College of Science	Mangalyaan celebration	Management	16th October, 2014
4	Dr. Bharathi S Department of Microbiology	Awareness program on World Mosquito Day	Management	20th August 2014
5	Department of Microbiology	National Science Day celebration	KSTA	27-28th Feb 2013
6	M Jayapragash Department of Computer Science	Awareness program on evolving technology & tremendous job opportunity	Networks Home, Bengaluru	27th September, 2013

### 3.1.7 Provide details of prioritized research areas and the expertise available with the institution.

The thrust areas of the College are diverse and the same are listed below:

- ✚ Development of transgenic plants
- ✚ Plant Micropropagation
- ✚ Pharmacological studies
- ✚ Production and characterization of enzymes
- ✚ Production, purification and characterisation of bioactive compounds
- ✚ Cytotoxic studies of bioactive compounds using cell lines
- ✚ Genotoxic studies
- ✚ Genetic diversity studies in plants using markers
- ✚ Bioremediation studies
- ✚ Natural dyes, Textile and Non-woven fabrics
- ✚ Polymer Nano-composites and Reinforced hybrid Nano-composites
- ✚ Magnetic properties of rare earth transition materials
- ✚ Software Engineering and Web Mining
- ✚ Data mining and analytics
- ✚ Image Processing.



**Table 68: Thrust area of faculty expertise**

<b>Thrust areas</b>	<b>Faculties with expertise</b>
Development of transgenic plants	Dr. Kavyashree R. Dr. Abdul Nayeem
Plant Micropropagation	Dr. Kavyashree R. Dr. Abdul Nayeem Mrs. Mamatha J
Pharmacological studies	Dr. Shivaji Bole Dr. Bharathi S
Production and characterization of enzymes	Dr. Shivaji Bole Dr. Yogesh B.J Dr. Pramod. T Dr. Prakash P
Production, purification and characterisation of bioactive compounds	Dr. Abdul Nayeem Dr. Shivaji Bole
Cytotoxic studies of bioactive compounds using cell lines	Dr. Rajeshwari H. Patil Dr. Kavisa Ghosh
Genetic diversity studies in plants using markers	Dr. Abdul Nayeem Dr. Kavyashree R. Dr. Sangita Roy
Bioremediation studies	Dr. Bharathi S Dr. Pramod. T Dr. Yogesh B.J Dr. Abdul Nayeem
Genotoxic studies	Mrs. Pavana Kamath P. Mrs. Raji Sukumar
Natural dyes, Textile and Non-woven fabrics	Dr. V. Narayana Swamy Ms. Indu G.K
Polymer Nano-composites and Reinforced hybrid Nano-composites	Dr. Srilatha R. Ms. Mohsina Taj Dr. Manirupa Saha Mr. Sumantha H. S
Magnetic properties of rare earth transition materials	Dr. Srilatha R. Ms. Shanthala V.S. Ms. Mohsina Taj Dr. Manirupa Saha Mr. Sumantha H. S
Software Engineering and Web Mining	Dr. Susil Kumar Sahoo Mr. Jayapragash M Mrs. Vinita Tapaskar Mr. Ramesh Babu
Data mining and analytics	Mr. Ramakrishna Reddy

	Mrs. Seena Asif Mrs. Sajana Balan Manian
Image Processing.	Ms. Gayathri Sudhir Mr. Ramanuja.

### 3.1.8 Enumerate the efforts of the institution in attracting researchers of eminence to visit the campus and interact with teachers and students?

The College facilitates interaction of the faculty and students with eminent researchers through various seminars, workshops and meetings organized by the College. Additionally, College conducts guest lecturers regularly to provide a platform for interaction with eminent researchers who visits the campus. The College has hosted the SEC Meet for selection of WOS-A candidates wherein the faculty and the students interacted with the subject expert committee members during their stay in the campus for three days. This interaction resulted in the implementation of one such WOS-A scheme in the the College and motivated many more to apply for the same.

**Table 69: Eminent researchers visited**

Sl. No.	Name of Expert speakers, designation, affiliation	Topic of guest lecture	Date
1	Prof. B.S. Sheshadri Scientist, BARC, HOD, Department of Physics, National Degree College, Jayanagar	Indian Nuclear Power Scenario	25th August, 2016
2	Dr. Geetha Vishwanathan, Dermatoglyphic Expert, Rtd.Professor, St. Joseph's College of Science, Bengaluru	Dermatoglyphics and its application in medicine	24th August, 2016
3	Dr. Partha Hazra Chief Scientific officer , Biocon India Ltd	Diabetes Awareness Talk	7th April, 2016
4	Dr Ramesh Babu Professor, Tamil Nadu	Marketing and Merchandising	05th April, 2016
5	Mr.K V Subba Rao-“ Senior Product Architect, Tech Mahindra	Wireless Systems and Standards”	30th March, 2016
6	Dr. Manohar Shinde Associate Professor, Tumkur University	Mass Spectrometry	19th March, 2016
7	Dr Ramesh Babu Professor, Tamil Nadu	Marketing and Merchandising	05th March, 2016
8	Dr. Deepshika Chakraborty Scientist, Cell and molecular biology IISc	Series of guest lecture on Pros and Cons of GMO's	3rd to 4th March, 2016
9	Dr. Basavaraja Angadi Asst. Professor, Department of Physics, Bangalore University	Recent trends in nanotechnology	1st March, 2016
10	Mr. Riaz A Medgenome technologies Bengaluru	Workshop on Karyotyping and	24th February, 2016

		chromosomal identification techniques with case studies	
11	Dr. Meenatchi Sundaram Assoc. Prof. Dept. of Microbiology Nehru College, Coimbatore, TN	Techniques of viral inoculation on chick embryo	19th February, 2016
12	Prof. Sarmista Sahoo Associate Prof and HOD, Dept, of Physics MLA College - Bengaluru	Quantum Tunneling	18th February, 2016
13	Ms. Veena Professor AIFT, Bengaluru	Historic costumes	11th February, 2016
14	Mr. Anant Keshav - -Skarray technologies Mysore	“Power factor reduction”	6th February, 2016
15	Dr. Shobha, Gynecologist, KIDWAI Institute of Oncology, Bengaluru	Awareness programme on Breast and Cervical cancer	5th February, 2016
16	Prof. B.S. Sheshadri Scientist, BARC HOD, PG Department of Physics, National Degree College, Jayanagar	Science and Spirituality	4th February, 2016
17	Dr. Ramesh Tamankar, Singapore University	“Introduction to Nano Science”	11th January, 2016
18	Dr.P. Raghothama Rao Scientist DRDO - Bengaluru	Material science - Foundation for Engg. Systems	6th November, 2015
19	Dr. Giridhar Upadhaya, Associate Prof. Dept. of Microbiology KIMS, Bengaluru.	‘Hepatitis and the need for creating awareness among the public’	30th August, 2015
20	Dr. V Preetha Tilak, St.John’s Medical College, Bengaluru	Prenatal Diagnosis and Genetic counselling	6th August, 2015
21	Dr. Vasudeva Rao Meta Helix, Bengaluru	IPR and Bioethics in Biotechnology	27th April, 2015
22	Mr. Satyabalan Murugesan and Mr. Vivek Thermyt Novobiologics Pvt Ltd	Biopharmaceutical- An overview and analytics in Biopharmaceuticals	23rd April, 2015
23	Dr. Satish LAAsst. Professor, PG Department of Physics Govt. Science College, Bengaluru	Nuclear Radiations	26th to 27th March, 2015

24	Dr. V Preetha Tilak, St.John's Medical College, Bengaluru	Chromosomal Aberrations in congenital disorders	25th March, 2015
25	Mr. Kawal Kalsi (Educator and Trainer- Creative Memory and Mind Management	'Creative Memory –Mindsmart'	14th March, 2015
26	Dr. Preetha Tilak St. Johns Medicasl College Hospital	Chromosomal aberrations in congenital disorders	25th February, 2015
27	Dr. Nagendra, Prof & Head, Dept. of Biotechnology Sir MVIT College	Applications of Bioinformatics	20th February, 2015
28	Dr. K.N. C. Murthy Ramaiah Medical College	Molecular Diagnostics: prospects and problems	20th January, 2015
29	Mr. Riaz Ahmed Narayana Hrudayalaya	Chromosomal Diagnostics	17th January, 2015
30	Mr. Videgi Krishnan Mehala Pvt. Ltd	CAD Technologies	9th January, 2015
31	Dr. Shyam Kumar Professor, Karnataka University, Darward	Drug Delivery systems	29th December, 2014
32	Mr. Pranesh M.K, Faculty, Akash Institute, Bengaluru	Evolution of Hemoglobin	13th November, 2014
33	Dr. Manoj Majumdar, Managing Director, Vinoy Biotechnology and Chief scientific officer, Stem and Tissue Engineering Research Centre, Bengaluru	Artificial and Bio-artificial skin in wound healing	7th October, 2014
34	Mrs Vasanthi Palanivei, Senior scientist, Polyclone Biosciences, Jayanagar, Bengaluru	Stem cells and its applications	11th September, 2014
35	Prof. Sarmista Sahoo Associate Prof and HOD, Dept, of Physics MLA College	Collisions	2nd September, 2014
36	Dr. Seenapa Former member of UNICEF	Awareness on mosquito borne disease - Malaria	20th August, 2014
37	Mr. Prasad CEO MM Trading Company Bengaluru	Fashion Design	11th August, 2014
38	Prof. Sarmista Sahoo Associate Prof and HOD, Dept, of Physics MLA College	Numerical Methods in physics	12th March, 2014
39	Dr. K.Nagasundara Bangalore University	on "Application of Symmetry in Chemistry"	07th March, 2014

40	Mr. Riaz Ahmed Health Care Global Hospitals	Biotechnology Finishing School- Workshop on FISH	01st March, 2014
41	Mr. Anand Dharwadkar NGO, Bengaluru	Prospectus of Natural Fiber	25th February, 2014
42	Prof. Vasudev, Departmentr of Bioscience, Hemangotri, PG center, University of mysore, Hassan	Sex determination and differentiation	19th February, 2014
43	Ms. Deepti Gupta Professor NIFT, Bengaluru	Creative surface texture a tool for fashion forward	18th February, 2014
44	Vakula Rani., MCA , M.Phil., (Ph.D), Professor & HOD, CMRIMS, Bengaluru.	Storage Area Network	19th November, 2013
45	Dr. Jayaprakash Director, Sasya Gentech.	Plant Molecular Biology and Therapeutics	28th October, 2013
46	Dr. Mamatha, Curator, Next Bio, California	Plant Molecular Biology and Therapeutics	28th October, 2013
47	Dr. Gopal Marathe Professor, Mysore Univ.	Plant Molecular Biology and Therapeutics	28th October, 2013
48	Dr. Pradeep Nair Sr. Scientific Manager, Biocon,	Plant Molecular Biology and Therapeutics	28th October, 2013
49	Dr. Gopal K Marathe Professor Mysore University	“Biology of an Unusual Bioactive Phospholipid”	21 <sup>st</sup> March, 2013
50	Dr Pradeep Nair, Senior Scientist Biocon,, Biocon India	“An overview of therapeutic monoclonal antibodies”	28th October, 2013
51	Dr. Naveen Padaki Scientist B, CSB, Bengaluru	Science of Clothing comfort	7th September, 2013
52	Dr. Aiyagiri Ramesh IIT, Guwahati	Nanotechnology in Biology – big strides with small tools	16th June, 2013
53	Dr. Harish Bhat Scientist, IISc.	‘Nurture Nature for your Future,	5th June, 2013
54	Dr. Veerendra Kumar KIDWAI	General Cancer Awareness	13 <sup>th</sup> febraury 2013

55	Dr. J.T.Devaraju Professor and Chairman Dept. of Electronic Science Bangalore University	“Object oriented C++”	17th January, 2013
56	Ms. Aparna S Fashion Designer, Bengaluru	Illustration from basics to portofolio presentation	12th January, 2013
57	Dr.Anand kant Das Senior researcher, TIFR Bombay	A TALK ON “SEEING IS BELEIVING	22nd December, 2012
58	Dr. Manjunath R Assoc. Prof. Dept. of Biochem. IISc.	‘Is and Was in Immunology’	17th November, 2012
59	Dr. Geetha Vishwanathan, Dermatoglyphic Expert, Rtd.Professor, St. Joseph’s College of Science, Bengaluru	Dermatoglyphics	01st October, 2012
60	Mrs.Aruna Niranjana	A Talk on Stress Management	29th September, 2012
61	Mr. Prasad KR CEO MM Trading Company Bengaluru	Fashion design process from concept to product	2nd September, 2012
62	Dr. J.T.Devaraju Professor and Chairman Dept. of Electronic Science Bangalore University	–“Interfacing Kits- PCI Card slot for Dual DAC Interface, Multiplexed Seven Segment Display Card.”-	29th June, 2012
63	Dr.S C Raghavendra Professor, PESIT	“Microwave Devices in microwave bench”	26th June, 2012
64	Dr. J.T.Devaraju Professor and Chairman Dept. of Electronic Science Bangalore University	Embedded systems- interrupt basic and survey of the software architecture	19th May, 2012
65	Dr. Shailaja Hithalmari, Scientist, GKVK, Bengaluru	DNA markers and markers assisted selection	22nd November, 2011
66	Dr Ravi Krishna Vasan Eye Care - Bengaluru	Diabetic retinopathy & its biochemical correlations.	3 <sup>rd</sup> October 2011

### 3.1.9 What percentage of the faculty has utilized Sabbatical Leave for research activities? How has the provision contributed to improve the quality of research and imbibe research culture on the campus?

In place of Sabbatical Leave, the College has provision for availing Extraordinary Leave for 3-6 months to pursue higher studies such as M.Phil./Ph.D./Post-Doc or for maternity and medical emergencies. The Extraordinary Leave does not carry any kind of monetary benefits. 5% of the faculty have availed this leave for their research work. Additionally, more than 75% of the faculty have availed OOD for attending various training programs, workshops, conferences, seminars, symposiums and FDPs. This provision has enhanced the technical skills of the faculty leading to quality publications and has motivated to procure external research grants.

### 3.1.10 Provide details of the initiatives taken up by the institution in creating awareness/advocating/transfer of relative findings of research of the institution and elsewhere to students and community (lab to land)

The faculty is encouraged to publish their research work in reputed journals and magazines. All Researchers in the campus make short presentations, highlighting their work, the significance of the research, and the benefits accruing from it for the benefit of the students and other faculty. The College has taken several steps in creating awareness and transfer of research findings to student community. They include the following:

- ✚ The faculty of TOCS have developed Biofertilizer consortium. First cycle field trials have been conducted successfully and second cycle trials are under progress.
- ✚ The faculty of TOCS has also developed root rot tolerant clones in ginger and turmeric by cell selection technique at Bangalore University. Field studies are in progress.
- ✚ Publishing articles in peer reviewed journals and books
- ✚ Contributing popular articles to Newspapers and regional periodicals.
- ✚ Organizing conferences and seminars
- ✚ Publication of conference abstracts and reports.
- ✚ Articles in Departmental Magazines.

## 3.2 Resource Mobilization for Research

### 3.2.1 What percentage of the total budget is earmarked for research? Give details of major heads of expenditure, financial allocation and actual utilization.

The management extensively supports research activities at the College by sanctioning separate budget annually for research purpose to meet the recurring and non-recurring expenditures. The details are as following:

#### Table 70 (a): Detailed budget for Biotechnology, Microbiology and Biochemistry

Sl. No.	Heads of expenditure	Financial Allocation (Rs.)
1	Procurement of equipments, instruments, appliances	5,00,000
2	Procurement of Chemicals, Kits, consumables etc.	2,00,000
3	Glassware, Furniture and Fixture	50,000
4	Specimen, plants and other experimental materials	50,000
5	Lab maintenance, service and repair	50,000
6	Seminar, conference, workshop, symposium, competition etc	1,00,000
7	Printing and stationery	50,000
8	Computers with networking connectivity	2,00,000
9	Advanced text books	3,00,000
10	Printed research journals	2,00,000
11	Online journals	1,00,000
12	Internet facilities in the research Library	1,00,000
13	Membership to DELLNET, INFLIBNET, eBooks, Software	1,00,000
	<b>Total</b>	<b>20,00,000</b>

**Table 70(b): Detailed budget for Computer Science and Applications**

Sl. No.	Heads of expenditure	Financial Allocation (Rs.)
1	Computer Lab with Desktop/Laptop	5,00,000
2	Furniture and Fixture	2,00,000
3	Networking Facilities	3,00,000
4	Software	2,50,000
5	UPS	50,000
6	Anti-virus software/Hardware	50,000
7	Firewalls	50,000
8	Computer Lab consumables and Maintenance	2,00,000
9	Seminar, conference, workshop, competition etc	1,00,000
10	Printed research journals	1,00,000
11	Online journals	1,00,000
12	Internet facilities in the research Library	1,50,000
13	Membership to DELLNET, INFLIBNET, eBooks, Software	1,50,000
	<b>Total</b>	<b>22,00,000</b>

**3.2.2 Is there a provision in the institution to provide seed money to the faculty for research? If so, specify the amount disbursed and the percentage of the faculty that has availed the facility in the last four years?**

The College Management sanctions annual budgets to each Department to assist the faculty in pursuing research and procure necessary equipments, special chemicals and glassware on the need basis.



### **3.2.3 What are the financial provisions made available to support student research projects by students?**

The student community is encouraged to carry out short term research projects under the guidance of faculty members. Annual budget for each Department is allocated by Management wherein purchase of equipments, special chemicals and glassware are procured on the need basis with approval from Heads of each Department. Additionally, students are encouraged to apply and obtain grants for carrying out projects from external funding agencies like VGST- SPiCE scheme, GoK etc.

Research ideas from student community are encouraged and incubated in Department once the proof of concept is validated with promising preliminary results. Faculty expertise and other financial support is also extended on the need basis.

### **3.2.4 How does the various Departments/units/staff of the institute interact in undertaking inter-disciplinary research? Cite examples of successful endeavors and challenges faced in organizing interdisciplinary research.**

- ✚ The College faculty is allowed to utilize the facilities of various Departments for interdisciplinary research.
- ✚ The faculty discusses the research ideas with other Department faculty having expertise in the relevant field of interest.
- ✚ Formal letters are exchanged with approval from HOD, Dean- R&D followed by Principal. Few successful examples are: collaboration between Biotechnology and Fashion and Apparel design, Biotechnology and Chemistry, Microbiology and Applied Genetics, Electronics and Computer Science.
- ✚ In coordination with Electronics Department, Fashion and Apparel Design Department is involved in research on the topic Costume Design with electronic components.
- ✚ Biotechnology Department is carrying out research work with Chemistry Department for spectral studies and elucidation of structure of plant based compounds.
- ✚ Biotechnology Department is carrying out research work with Electronics Department for development of biosensor for detection of water pollution.
- ✚ The Oxford Group of Institutions has several sister concerns. Inter disciplinary research is carried out in collaboration with other sister institutes.

### **3.2.5 How does the institution ensure optimal use of various equipment and research facilities of the institution by its staff and students?**

All the laboratories/computer labs/equipments/library can be used by any student or staff for research purpose. The laboratory facilities can be availed even on holidays for research purposes. The College is however open to the idea of incubating start ups and creating joint research facilities with outside researchers as well, based on mutually agreed terms and conditions. Further, following steps are taken to ensure the optimal use of various equipment and research facilities:

- ✚ Regular monitoring by IQAC regarding progress of research and utilization of lab and other resources.
- ✚ Encouraging faculty and students to involve in research activities.
- ✚ Providing computers, internet facility and other infrastructure.
- ✚ Providing UGC-INFLIBNET, DELNET and IEEE facility to access research journals, extended library hours, log books for equipments
- ✚ Facilities extended to faculty and students of sister concern Colleges and also to other Colleges/universities.

**3.2.6 Has the institution received any special grants or finances from the industry or other beneficiary agency for developing research facility? If 'yes' give details.**

Although the College is successful in obtaining grants from government funding agencies, it is in the process to apply to industry or other beneficiary agency for grants to develop research facility. However, the College has received the support from the industries in terms of placing our students as interns for training and placements.

The College is short listed for the prestigious Biotechnology Skill Enhancement Program (BiSEP) of Dept. of IT, BT and S&T, GoK and for DST-FIST program. The College also has applied for funding under Atal Incubation center (AIC), GoI and Technology Business Incubators (TBI), GoK and is under process.

Department of Electronics is regularly utilizing the online virtual lab facilities from IIT, Mumbai for practical aspects.

**3.2.7 Enumerate the support provided to the faculty in securing research funds from various funding agencies, industry and other organizations. Provide details of ongoing and completed projects and grants received during the last four years.**

- ✚ The College has a Research Committee and the Dean-R&D takes the initiatives and updates the entire College faculty about the various notifications for research grants by state and central funding agencies.
- ✚ The Research Committee and the Dean for Research also update the faculty and students about the upcoming scientific events such as workshops/seminars/conferences.
- ✚ Institution supports the faculty and students by giving OOD and reimbursing the registration fee if any, for workshops/seminars/conferences.
- ✚ Institution organizes project proposal writing workshops by experts in the field to help the faculty in writing effective research proposals.
- ✚ The College encourages and supports the faculty and students to procure equipments and specialized chemicals required for research on need basis from the research funds allocated by College Management.

**Table 71: Details of Ongoing and Completed Projects**

		Title of	Name of	Total Grant	Total
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Nature of the Project	Duration Year From To	the project	the funding agency	Sanctioned	Received	grant received till date
Minor projects	2016-18	Utilization of agro waste- jackfruit peel (rind) and corn husk by cellulase Produced from the bacillus sp, 12a	UGC	1,50,000/-	75,000/-	75,000/-
	2015-17	Isolation and screening of L-glutaminase producing bacterial strains from marine sources by submerged fermentations	UGC	2,40,000/-	1,20,000/-	1,20,000/-
	2015-17	Copper Catalyzed direct and site selective arylation reaction under mild conditions.	UGC	2,85,000/-	1,50,000/-	1,50,000/-
	2012-13	In vitro and in-situ studies on microbial detoxification of plastic wastes	SMYS, VGST, GoK	5,00,000/-	5,00,000/-	5,00,000/-
Major projects	2015-18	Increase in biomass and productivity of transgenic Stevia by over-expressing the Flowering Locus M	WOS-A scheme, DST, New Delhi	22,00,000/-	10,10,000/-	10,10,000/-

		(FLM), Terminal Flower 1 (TFL1) and down-regulating the Flowering Locus T(FT).				
	2012-216	Micropropagation and Pharmacological studies in <i>Alstonia scholaris</i> , a medicinal plant.	CISEE Program, Vision Group on Science and Technology (VGST), Govt. of Karnataka	30,00,000/-	20,00,000/-	20,00,000/-
	2011-13	Biochemical alteration studies in <i>Amaranthus</i> spp during Aluminium stress.	K-FIST	20,00,000/-	20,00,000/-	20,00,000/-
Students research projects	2013-14	<i>Couroupita guianensis</i> Flower Extract (Nagalinga pushpa): A Potential Natural Remedies for Dental Caries	VGST SPiCE	30,000/-	30,000/-	30,000/-
	2013-14	Image encryption and decryption using FPGA	VGST-SpiCE	30,000/-	30,000/-	30,000/-
	2012-13	Isolation of plastic degrading microorganism from dump site of	SpiCE VGST, GoK	30,000/-	30,000/-	30,000/-

		Bengaluru and optimization of parameters for increased degradation				
	2012-13	Heavy metal contamination, bio accumulation and genotoxicity in Bengaluru lakes – comparative study	SPICE, VGST	30,000/-	30,000/-	30,000/-
	2011-12	Degradation of poultry waste by keratinolytic actinomycetes isolated from poultry waste dumping site in Bengaluru	SpiCE VGST, GoK	30,000/-	30,000/-	30,000/-
	2011-12	Utilization of agro waste Jackfruit peel (rind) by the Bacillus sp, for the production of crude mannanase	VGST SpiCE	30,000/-	30,000/-	30,000/-
	2012-13	Effeciciency of solar panels using nano crystals	VGST SpiCE	30,000/-	30,000/-	30,000/-
Any other	2010-11	Infrastructural improvement	KBITS, GoK	1,00,00,000/-	1,00,00,000/-	1,00,00,000/-
i.BTFS program						
ii. DST – FIST	2016-17	Infrastructural improvement	DST – FIST	60,00,000/-	-	-
iii. BiSEP Program	2016-17	-	KBITS, GoK	Communication awaited	-	-

### 3.3 Research Facilities

#### 3.3.1 What are the research facilities available to the students and research scholars within the campus?

The College has all facilities for research activities. Some of the facilities provided are:

- + State-of-the-art research labs with all the basic and high end equipments required for research activities, available for extended hours.
- + Well stocked digital library with advanced books and refereed/peer reviewed research journals, INFLIBNET, DELNET, Subscription to e-books and e-journals, OPAC
- + Departmental magazines released annually provide an excellent platform for showcasing the abstracts of research work done by the staff and student.
- + State-of-the-art computer labs with 557 computers and the College has total of 625 computers connected to printers with internet connections.
- + Upgraded computer labs with latest configuration and application software
- + Wi-Fi enabled campus with uninterrupted power supply and 24x7 security

Some of the major facilities available with the College are listed below:

- + Plant tissue culture facility
- + Animal cell culture facility
- + Cellular and molecular diagnostics facility
- + Bioprocess technology facility (in process)

**Table 72 a: List of major equipments**

Gradient PCR	Stereo zoom microscope	Flame Photometer
Gel documentation system	Lyophilizer	Function Generators
ELISA reader	CO2 incubator	C.R.O (Single and Dual Channel)
Millipore water purification system	PIC16 Development Board Kit	Decade Resistance, Capacitance and Inductance Box
Refrigerated micro centrifuge	Orbital shakers	Interfacing boards
Refrigerated centrifuge with interchangeable rotors	BOD Incubator	Interferometer
Deep freezer (-20 <sup>0</sup> C, -80 <sup>0</sup> C)	Rotary evaporator	OP-AMP Trainer and Power Supply
Orbital Shaking Incubator	Laminar air flow unit (Vertical)	G.H Counter
Communication Kits	Laminar Air Flow Units (Horizontal)	Hot plates- rectangular
UV Transilluminators	UV Spectrophotometers	Optical Fiber Kits
Double Distillation Units	Microwave bench	Dual Regulated Power Supply
Colony Counters	Biosafety Cabinet Class II A	Gunn Diode
Digital Electronic Balance	Ice Flaker	Microprocessor Kits

Inverted microscope	Klystron Amplifier	Raspberry pi kits
Digital measuring meters		

**Table 72.b List of Programming Language/Applications/Tools**

Sl.No.	Programming Language/ Applications / Tools
1.	Oracle 9i
2.	Core Programming Languages ('C', 'C++', Java etc)
3.	Visual Basic 6.0
4.	Matlab 2016, Xilinx 8i,10i,14i, Masm ,Tasm
5.	SQL Server
6.	Microsoft Visual Studio 2005
7.	Microsoft Office 2007, 2010
8.	Microsoft Office Projects 2008
9.	Tally ERP 9
10.	Wordsworth English Software
11.	scilab, Maxima, Mathematica
12.	R software
13.	CAD, GARBER, Rech CAAD Photoshop, Corel draw software for Fashion and apparel designing,
14.	Cadence
15.	BLAST, FASTA, RASMOL, Modeller, Gromacs, Autodock

### 3.3.2 What are the institutional strategies for planning, upgrading and creating infrastructural facilities to meet the needs of researchers especially in the new and emerging areas of research?

As The Oxford College of Science is a recognized **Research Center** from Bangalore University, College supports the Ph.D. programs of the University. The College is all geared up to plan strategies to upgrade its existing research facilities further and take up

initiatives to move forward in the new and emerging areas of research. Some initiatives are;

- ✚ Research laboratories were upgraded with all basic facilities, computers with internet facility provided to access free e-journals and e-books.
- ✚ Necessary equipments were purchased by using VGST, UGC, KBITS and DST grants.

The College has submitted proposal for Atal Incubation Center (AIC) under Atal Innovation Mission Program, GoI and Technology Business Incubators (TBI), GoK to set up Incubation center to support Startup companies. The results are awaited.

✚ Management has provided other infrastructure needs like working tables, cupboards, 24 hours power supply with power backup, 24 hours water supply and many other aspects.

✚ Library facilities are continuously upgraded to support the research needs.

✚ The faculty as well as students has access to online journals out of which many e-journals are subscribed for free access.

✚ The College also purchases special reference books on the need basis.

The College has been sanctioned DST-FIST program to upgrade its infrastructural and research facilities in the Bioprocess technology area.

**3.3.3 Has the institution received any special grants or finances from the industry or other beneficiary agency for developing research facilities? If 'yes', what are the instruments / facilities created during the last four years.**

The College is successful in obtaining grants from government funding agencies and is in the process to apply to industry or other beneficiary agency for grants to upgrade research facility. But the College has collaboration and MOU's with many industries and institutes for training and internship and other research activities. However, Departments are getting encouraging support from industry and institution in support of research viz. delivering special lectures to students and faculty utilizing the online virtual lab facilities etc.

**3.3.4 What are the research facilities made available to the students and research scholars outside the campus / other research laboratories?**

As the Oxford Institutions has the College of Medical sciences, Dental sciences, Engineering sciences, Pharmacy, and many other sister concerned institutions, the facilities of the same are extended to the faculty and students for their research activities through proper channel.

Also as the College has collaboration and MOUs with many industries and institutes where the faculty and students avail their facilities. The College extends all the support to faculty and students to go outside the campus / other research laboratories to carry out research related activities by giving special leave like OOD and allowances with prior permission.

The faculty and students of the College have availed the facilities of our sister concern institutes as mentioned above. Apart from these, facilities from other sources such as NIMHANS, NIANP, IISc., NCBS, GKVK, Seri-biotech research labs, IIHR, Nargund College of Pharmacy, Jain University, Bangalore University, NDRI, Azymes Bioscience in Bangalore and Centre for Excellence of Mysore University. The faculty and students are facilitated to utilize the Library facilities of national institutes/universities such as IISc, IIM, NCBS, NIMHANS, UAS, GKVK, JNCASR Bengaluru etc.



**3.3.5 Provide details on the library/ information resource center or any other facilities available specifically for the researchers?**

The College has state-of-the-art Library which has 25,376 books. It subscribes 94 National and International journals. Library helps easy access to books through OPAC: This software-based book search also makes it easy for teachers and students to locate the books that they need. The Library has DELNET, INFLIBNET and IEEE facilities.

There is a separate section in library exclusively for faculty and research scholars. The dedicated facility has separate computers connected to internet with access to e-journals and e-books for research purpose alone. Special provision for borrowing journals is provided to researchers. The library hours are extended on the need basis.

**3.3.6 What are the collaborative research facilities developed/ created by the research institutes in the College. For ex. Laboratories, library, instruments, computers, new technology etc.**

The College has collaboration with many research institutes to carry out research projects and placing students as trainees or interns. Institution has MOUs with industries, research institutions and educational institutes to extend research facilities.

The College has collaboration with institutes such as GKVK, IIHR, IISc, NIMHANS, DRDO, NAL, BEL, Seri-biotech, NIANP, InfoCampus, First Global Software Bengaluru and Universities like Bangalore University, Karnatak University, Dharwad and Madurai Kamaraj University, Tamil Nadu. The College also has carried out short term research projects in companies such as Stelixir Biotech Pvt. Ltd., Probiosys, Anthem Biosciences Pvt. Ltd., Azymes Bioscience, Global Research Innovations and Development, Future Solutions, TechSoft, Silvermine software, Mlewzklawz IT solutions Pvt. Ltd., and Vinfotek, Bengaluru.

**3.4 Research Publications and Awards**

**3.4.1 Highlight the major research achievements of the staff and students in terms of \* Patents obtained and filed (process and product) :**

**Table 73 Details of Patents obtained and filed**

Sl. No.	Name of Faculty	Title	Patent details	status
1	Dr. Nirmala Nair Department of Biotechnology	Recombinant human insulin and a method thereof	Indian patent application 1037/CHE/2007 PCT/IN2008/000301 WO/2008/139496	Obtained
2	Dr. Debarati Department of Chemistry	Improved process for the preparation of 1-fluoro-2, 3-dialkoxybenzene	WO2011/064789	Obtained

		and 2-fluoro-1, 4-dialkooxybenzene.		
		Green analytical technique for drug quantification	Indian patent (4299/DEL/2015)	Filed on 28/12/2015

**\* Original research contributing to product improvement**

- Development of Biosensor for the detection of pollutants in water is under process between Department of Biotechnology and Electronics.

**\* Research studies or surveys benefiting the community or improving the services**

Applications (Retail, Banking, Insurance, Health care, Education domains) developed by the students are as follows: e-shopping, Online banking, Airline/Bus/Movie tickets/Train reservation system, Hospital management system, Library Management System, Campus Management System, Call center Management system, Insurance Management System, e-calculators, Grammer app.

**\* Research inputs contributing to new initiatives and social development**

- The faculty of TOCS have developed Biofertilizer consortium. First cycle field trials have been conducted successfully and second cycle trials are under progress.
- The faculty of TOCS has also developed root rot tolerant clones in ginger and turmeric by cell selection technique in collaboration with Bangalore University. Field studies are in progress.

**3.4.2 Does the Institute publish or partner in publication of research journal(s)? If 'yes', indicate the composition of the editorial board, publication policies and whether such publication is listed in any international database?**

The College has initiated publication of research journal "The Oxford Journal of Scientific Research" with ISSN/ISBN number. However, the College releases the Proceedings of CTCS Conference viz.

- National conference on Current Trends in Computer Science held on March 4<sup>th</sup> 2014 ISBN (978-93-83459-14-8)
- National conference on Current Trends in Computer Science held on March 16<sup>th</sup> 2016 ISBN (978-93-85477-77-5)

The College has initiated publication of research journal "The Oxford Journal of Scientific Research" with ISSN/ISBN number.

Also, many Departments releases the Departmental magazines such as 'Biovistas' by Department of Biotechnology, 'Jeeva Sparsha' by Department of Microbiology, 'Ganita Loka' by Department of Mathematics, 'Oxygem' by Department of Computer Science and many other Departments are also taking initiatives in this aspect. Many faculty

members are in Editorial Board and serve as reviewer for many peer reviewed national and international journals such as African Journal of Biotechnology, Agricultural Science Research Journal, International Research Journal of Biotechnology, Physiology and Molecular Biology of Plants. Dr. Kavyashree R, Principal of the College

is an Executive Council Member of Journal of Cytologists & Geneticists, a journal having ISSN No.:0253-7605.

**3.4.3 Give details of publications by the faculty and students:**

- \* **Publication per faculty**
- \* **Number of papers published by faculty and students in peer reviewed journals (National / international)**
- \* **Number of publications listed in International Database (for Eg: Web of Science, Scopus, Humanities International Complete, Dare Database - International Social Sciences Directory, EBSCO host, etc.)**
- \* **Monographs**
- \* **Chapter in Books**
- \* **Books Edited**
- \* **Books with ISBN/ISSN numbers with details of publishers**
- \* **Citation Index**
- \* **SNIP**
- \* **SJR**
- \* **Impact factor**
- \* **h-index**

**Table 74 Faculty publications**

Sl. No.	Name of the Faculty	Publications per faculty
<b>Department of Biotechnology</b>		
1.	Dr. Kavyashree, R.	34
2.	Mrs. Mamatha J	08
3.	Dr. Abdul Nayeem	11
4.	Dr. Shivaji Bole	17
5.	Dr. Nirmala Nair	01
6.	Dr. Ritika Chauhan	14
7.	Dr. Rajeshwari H. Patil	09
8.	Mr. Punith B.D.	04
9.	Dr.Kavisa Ghosh	04
<b>Department of Microbiology</b>		
10.	Dr. Bharathi S	16
11.	Dr. Yogesh BJ	10
12.	Dr. Pramod T	15
13.	Mr. Sekar KV	11

14.	Mr. Prajeesh P	04
15.	Ms. Deepthi Varier	03
16.	Ms. Asha Ninan	04
Department of Biochemistry		
17.	Dr. Sangita Roy	15
18.	Dr. Prakash.P	05
19.	Mrs.Vijaya. R	01
20.	Mr. Bhanuprakash.K.S	02
21.	Mrs.Vatsalya Krupa	01
22.	Mr. Umesh HR	05
Department of Genetics		
23.	Mrs Raji Sukumar	01
24.	Dr. Arpita Kundu	08
25.	Dr. Deepa Gopinath	06
Department of Fashion and Apparel Design		
26.	Dr. V. Narayana Swamy	11
27.	Ms. Indu G.K	02
Department of chemistry		
28.	Dr. Debarati	08
29.	Dr.V. Venkatesh	08
30.	DrA.C. Jayasree	05
31.	Dr T. A Jenifer	05
32.	Dr. Gopal Reddy N B	04
Department of Computer Science		
33.	Dr. Susil Kumar Sahoo	07
34.	Dr. Meenakumari	07
35.	Jinesh V N	03
Department of Physics		
36.	R. Srilatha	03
37.	V.S. Shanthala	03
38.	Manirupa Saha	06
39.	P.G. Nisha	03
Department of English		
40.	Dr. Sharada Ajit	03

The details for the above queries are given in detail in **Annexure-3.4.3**

### 3.4.4 Provide details (if any) of

#### \* Research awards received by the faculty

**Table 75: Research awards received by the faculty**

Sl. No.	Name of faculty	Title/Nature of award	Awarding agency	Year

1.	Dr. R. Kavyashree	Jnana Fellow	Karnataka Knowledge Commission, Government of Karnataka	2011
		Young Scientist Award	Faculty of Medicine and the Institute of Indigenous medicine, University of Colombo, Colombo, Sri Lanka	2011.
		Seed Money for Young Scientists Research Award	Vision Group of Science and Technology, GoK	2012
2.	Mr. Shivaji Bole	First prize for paper presentation	conference on Beyond the frontiers in science & technology The Oxford College of Science, Bangalore.	2014
		First prize for paper presentation	Conference on Recent Trends in genomics and Proteomics. Bangalore University, Bangalore.	2011
3.	Mrs. Mamatha J	First prize for paper presentation	International conference on microbial Technology, Shridevi Institute of Technology, Tumkur	2012
4.	Dr. Abdul Nayeem	First prize for paper presentation	7th Annual KSTA National Conference, The Oxford College of Science, Bangalore.	2015
5.	Dr. Raghavendra P.B.	First prize for paper presentation	7th Annual KSTA National Conference, The	2015

			Oxford College of Science, Bangalore.	
6.	Mrs. Madhukala	Poster presentation /Second prize	A national conference on Bioactive Compounds & Therapeutics	2012
7.	Dr. Sangita Roy and Mr. Bhanu Prakash	Poster presentation /Second prize	Conference on Biotechnological approaches in Medicinal and Aromatic plant Research	2013
8.	Prakash P* Krishna Madhukar.G and Patel Mehul K	Poster presentation /Second prize	Maharani science College For Women	2015
9.	Dr. V. Narayana Swamy	Dr. Triguna Charan Sen Prize	The Institution of Engineers (India)	2016
10.	Dr. V. Narayana Swamy	Best paper certificate	International J of Engineering Sciences & Research Technology	
11.	Raji Sukumar, Harish T.	Second place in Poster presentation	KSTA	2015

\* Recognition received by the faculty from reputed professional bodies and agencies, nationally and internationally

**Table 76: Recognition received by the faculty from reputed professional bodies and agencies, nationally and internationally**

Sl. No.	Name of faculty	Nature of Recognition	Recognition agency	National/ International
1	Dr. Kavyashree R.	Fellow of Society of Applied Biotechnologists (FSSc)	Society of Applied Biotechnologists	National

\* Incentives given to faculty for receiving state, national and international recognitions for research contributions.

The College provides incentives to faculty for research contributions. The Management's initiatives are as follows

**Table 77a : Incentive to faculty**

Sl. No.	Particulars	Amount
1	National level Presentation	Rs. 2,000/-
2	National level Publication	Rs. 3,000/-
3	International level Presentation	Rs. 4,000/-
4	International level Publication	Rs. 5,000/-
5	Registration Fee for attending/ participating in conferences	Re-imbursed

### 3.5 Consultancy

#### 3.5.1 Give details of the systems and strategies for establishing institute-industry interface?

The College is actively involved in initiating collaborations with many industries and institutes. To establish and maintain institute-industry interface, College has following strategies:

- ✚ The College has a Research Committee which identifies and initiates collaborations in the form of MOUs/agreements on the need basis of its Departments.
- ✚ The committee members maintain the data base of all the details related to linkages/collaborations and benefits obtained
- ✚ The committee entrusts the Departments to
  - Facilitate placing of students as interns and for short term projects.
  - Invite eminent professionals from industries and institutes to conduct workshops and training programs.
  - organise industry visits to students for Industry interface.
- ✚ The College has dedicated Placement Cell, which also plays important role in institute-industry interface and assists the students for internships and placement.

#### 3.5.2 What is the stated policy of the institution to promote consultancy? How is the available expertise advocated and publicized?

- ✚ The College's available expertise is advocated and publicized in the College website which is updated regularly with contact details so as to receive queries from industry.
- ✚ The College has created a consultancy policy to encourage the faculties to provide consultancy to external institutions and companies.
- ✚ The College has BTFS program and through which it has established excellent Institute-Industry interface. Using this platform, the infrastructural and research facilities are publicised which are open for industry especially start-ups to collaborate and use the facility.

✚ The Oxford sister concern institutions have developed and established their laboratories by consulting the expertise of our faculty.

**3.5.3 How does the institution encourage the staff to utilize their expertise and available facilities for consultancy services?**

- ✚ The faculty members mentor the students and significant research findings are published as research articles which are the outcome of original research undertaken by interns and trainee students in association with industries and institutes.
- ✚ The College has created a consultancy policy.
- ✚ Additional time off, OOD etc. are granted to faculties involved in consultancy.
- ✚ Many faculty members are recognised research guides of various Universities for guiding M. Phil. / Ph. D. students.
- ✚ The faculty have been providing services to other Colleges and Universities as resource persons to conduct workshops and training programs.
- ✚ Many faculty members are editors and reviewers for various peer reviewed scientific national and international journals.

**3.5.4 List the broad areas and major consultancy services provided by the institution and the revenue generated during the last four years.**

The College has highly qualified faculty and are serving as consultants or resource persons to various other Colleges. However, the services are honorary and limited to TA/DA. Some of the major consultancy services provided are:

- ✚ Curriculum design for other institutions and universities
- ✚ Designing of laboratories
- ✚ Writing Project proposals
- ✚ Subject expert member
- ✚ Executive council member
- ✚ Serving as guide for M.Phil./Ph.D. students
- ✚ Summer training programs
- ✚ Setting up laboratories and other infrastructure for other sister institutions

**Table 77 b: List of consultancy services**

Sl. No.	Name of faculty	Type of consultancy	Place
1	Dr. Vedamurthy A.B. Dr. Bharathi S	Designing of laboratories	Department of Biotechnology, The Oxford College of engineering The Oxford College of Pharmacy
2	Dr. R. kavyashree Dr. Bharathi S	Writing Project proposals	Department of Biotechnology, The Oxford College of engineering



	Dr. Abdul Nayeem		
3	Dr. R. kavyashree	Subject expert member	Department of Botany, Karnatak University, Dharwad
4	Dr. R. kavyashree	summer training programs	The International school, Bengaluru
5	Dr. R. kavyashree	Executive council Member	Society of Cytologists & Geneticists, Bengaluru
6	Dr. Vedamurthy A.B.	Designing of laboratories	Narayan Gurukul, Bengaluru

### 3.5.5 What is the policy of the institution in sharing the income generated through consultancy (staff involved: Institution) and its use for institutional development?

- ✚ The College has created a consultancy policy outlining details for sharing of income.
- ✚ Income generated through consultancy is limited to TA/DA.
- ✚ the College does not claim any share for the consultancies conducted on the individual capacity.
- ✚ Services wherein College resources and infrastructure are used, the College have plans to generate income and use it for institutional development.
- ✚ The College also offers consultancy services free of cost for charitable organizations.

### 3.6 Extension Activities and Institutional Social Responsibility (ISR)

#### 3.6.1 How does the institution promote institution-neighborhood-community network and student engagement, contributing to good citizenship, service orientation and holistic development of students?

- ✚ The institution ensures a springboard network to develop mutual cooperation with the community in the neighborhood to undertake social work for the betterment of the students and the society at large. It enables the students to fully identify their potential and embark on a developmental path.
- ✚ The institution enables students with an opportunity to serve the people in the nearby villages through its community engagement program, a key feature of the NSS outreach and extension activities like cleaning the village, supplying medication, conducting medical camps and tree plantation, etc.
- ✚ Students along with faculty organizes various awareness programs to educate the local community on issues related to environmental pollution and its impacts; segregation and recycling of waste and conservation of biodiversity.
- ✚ Students take initiative to promote an ideal setup in rural areas to bring about a perceptual change in the mindset of the people to realize the importance of education.

- ✚ Blood donation camp is an event where students involve themselves to serve the community which enables them to appreciate the values of sacrifice and service above oneself.
- ✚ The institution offers extension programs in addition to those supported by the University like NSS & NCC.
- ✚ The mandatory seven-day residential annual camp for the NSS students is a program to experience the rural life and understand the existing social issues they face.
- ✚ The regular extension activities scheduled, open new avenues to students to understand the challenges of the under privileged.

### **3.6.2 What is the institutional mechanism to track students' involvement in various social movements/ activities which promote citizenship roles?**

The institution has incorporated a MIS where

- ✚ Students can update the activities through student app.
- ✚ Coordinators may update student activities.
- ✚ While taking attendance, if the student is absent due to participation in some outreach activities, the corresponding details are mentioned. Report may be generated from such data.

The institution inspires the students to actively involve themselves in various social and community betterment activities which aid in developing leadership qualities.

### **3.6.3 How does the institution solicit stakeholder perception on the overall performance and quality of the institution?**

- ✚ The institution through its regular outreach programs with the active involvement of the students takes feedback from the stakeholders, guests and visitors.
- ✚ The institution has a formal induction program for all the new NSS students where parents are invited to interact with the College authorities and provide their perception about the activities planned. The principal shares the vision of the College, invites and appeals the stake holders to support the mission.
- ✚ The College maintains a visitor's book where in the visitors and guests are encouraged to provide the suggestions for improvement.
- ✚ Feedbacks are taken during the concluding session of every NSS activity and are considered for further improvement. Analysis is available.

### **3.6.4 How does the institution plan and organize its extension and outreach programs? Providing budgetary details for last four years, list the major extension and outreach programs and their impact on the overall development of students.**

- ✚ Before the commencement of the academic year, an annual plan is prepared as per the local needs based on the survey in the nearby villages.
- ✚ Bangalore University provides direct funding every year for NSS activities.

✚ The plans are sometimes executed in collaboration with various organizations. The budget shown in the below table is the amount spent for the logistics of the students. The service is in the form of “Shramadaan”.

**Table 78: NSS programs during the last four years**

Year	Activity	Beneficiaries	Budget
2015-16	Road side Plantation	Shivanahalli to Jayapura Doddi Villages	8,750
	Blood donation camp	Students and faculties and residents of College neighborhood	2,230
	Knitting training	Hale Nijagallu, Nelamangala Bengaluru	1,250
2014-15	Construction of Check dam	Ragihalli village, Jigani Bengaluru	3,500
	Embroidery Training For rural women's	Vadeerahalli, Kanakapura, Ramanagara Dist.	1,150
	Eye camp	Vadeerahalli, Kanakapura, Ramanagara Dist.	1,800
2013-14	Jalagamvardhan	Doddakondralli, Kaiwara, Chintamani	3,750
	Repair of road	Rishi Vignana vikasa Kendra, Kaiwara, Chintamani	1,250
	Swach Bharth abhiyaan	Hire Madiwal Village near Attibele, Bengaluru.	3,500
	Eye Check-up camp	Students and faculties and residents of College neighborhood	3,000
	Plantation of Meditation plant	College campus	1,000
2012-13	Providing cloths, Free books	Rajapura, Bengaluru rural	2,180
2011-12	Awareness Rally	HSR layout Bengaluru	2,500

- ✚ The NSS unit has organized special lectures on various aspects such as Biodiversity, Conservation of wild life, Nature awareness program, Special Lectures on Food safety and Nutritional requirements.
- ✚ Observing National and International Days like AIDS Day, Communal harmony and Integration Day, Earth Day, Environment Day, Road safety Day etc.
- ✚ The Program Officer & the Principal regularly monitor the activities. Students look forward to participate in the program with more enthusiasm.
- ✚ All the above activities inculcated value of social responsibility, leadership qualities, sensitizing towards social issues. The participation in such activities has motivated some students to join hands with NGO's working in same line even after their College tenure.

### **3.6.5 How does the institution promote the participation of students and faculty in extension programs, including NSS, NCC, YRC and other National/International agencies?**

- ✚ The NSS Programme Officer promotes NSS through an induction program during which the students are educated about the significance of social works and motivated by showcasing achievements and experiences from the previous NSS camps.
- ✚ Such induction programs have succeeded in attracting huge number of students for enrolment to NSS which has encouraged the College to look forward to the expansion of NSS unit.
- ✚ Various faculty members oversee committees conducting outreach activities.
- ✚ The College also has taken initiatives to create awareness about the NSS through College website, discussion forums, guest talks, documentaries and pamphlets etc.
- ✚ The NSS Program Officer ensures complete support of rural panchayat leaders for effective implementation of NSS activities
- ✚ The College provides an opportunity for faculty and students to participate in extension activities such as Pulse Polio Program, Blood Donation camp, World AIDS awareness day, Clean & green program, Swach Bharath Abhiyan, plantation program, youth leadership training program both in & outside the College premises.
- ✚ The institution promotes these extension activities by extending help in the form of volunteers, funds, refreshment and transport facilities.

### **3.6.6 Give details on social surveys, research or extension work (if any) undertaken by the institution to ensure social justice and empowerment of students from under-privileged and vulnerable sections of society?**

The College is always ready to make a conscious effort to promote social justice to the downtrodden people

- ✚ NSS volunteers teach/train under privileged communities to use ATM and Mobile Banking.
- ✚ The Institution conducts awareness activities for economically backward localities regarding different schemes introduced by the Government like PM's JAN-DHAN Yojana.
- ✚ NSS volunteers also carry out Swach Bharath Abhiyan activities.

### **3.6.7 Reflecting on the objectives and expected outcomes of the extension activities organized by the institution, comment on how they complement students' academic learning experience and specify the values and skills inculcated.**

- ✚ The extension activities aim at the involvement of students in social chores, which ultimately lead to overall development of the personality. These activities provide exposure to the students about the real-life situations, which help in cultivating the

vital personality traits like self-confidence, leadership, self-discipline, devotion, hard work, team spirit etc.

- ✦ NSS grooms the students' overall personality and helps them to develop into more responsible individuals to appreciate and bring out their intrinsic potential for betterment of the society.
- ✦ NSS inculcates the spirit of team work, time Management, importance of interpersonal skills, leadership qualities etc. which are essential for improving the personal and profession well being and employability of the students.
- ✦ The experience gained through extension and outreach programs helps students make better decisions, adapt to change, improve their self-esteem and better prepare for their career, among other benefits.
- ✦ Additionally, the UG curriculum of the University which offers community work as one of the optional papers has enhanced the influx of students opting for the same.

**3.6.8. How does the institution ensure the involvement of the community in its reach out activities and contribute to the community development? Detail on the initiatives of the institution that encourage community participation in its activities?**

- ✦ The institution ensures community participation by reaching out to community, Gram panchyat and local social activists to associate with NSS wing taking suggestions and feedbacks.
- ✦ With the valuable co-operation of the community, the institution has successfully conducted social activities such as Literacy programs, Health awareness programs, Pulse polio program, Cleanliness programs, Blood Donation camp and eradication of social evils.
- ✦ The Students of the College regularly visit and extend services in schools for special childrens such as Samarthanam, Orphanages and NGOs.
- ✦ The College also conducts various science programs for motivating young minds to pursue science as career by organizing science workshops and exhibitions for school children (National Public School, Cambridge Public School, Jnana Shristhi School, Freedom International School, and The Oxford School).

**3.6.9 Give details on the constructive relationship forged (if any) with other institutions of the locality for working on various outreach and extension activities.**

- ✦ The College has organized in association with The Oxford College of Engineering, a marathon for awareness on conservation of biodiversity.
- ✦ The College has organized blood donation camps in association with Indian Red Cross.
- ✦ The College has taken initiatives to protect Agara lake, which is in vicinity of the College in association with local bodies.

The college organizes extension activities in collaboration with 28 other sister institutions.

✚ The College has conducted numerous workshops and training sessions in collaboration with Positive Psychology Unit of NIMHANS, Bengaluru for helping students in coping up with the stress, exam pressure and achieving sound mental health.

✚ The institution forges firm linkage with Adanya Chetana, Neighbouring Gram panchyats, Primary Health Centres etc. to carry out its various extension activities in the locality.

✚ The Eco club of the College has taken initiatives for Waste Segregation in association with local bodies.

**3.6.10 Give details of awards received by the institution for extension activities and/contributions to the social/community development during the last four years.**

✚ The institution is popular and known for conducting extension activities & community services in and around Bengaluru city.

✚ The College’s initiatives and its concern for social cause has been recognized & appreciated by the society.

**3.7 Collaboration**

**3.7.1 How does the institution collaborate and interact with research laboratories, institutes and industry for research activities. Cite examples and benefits accrued of the initiatives – collaborative research, staff exchange, sharing facilities and equipment, research scholarships etc.**

The Oxford College of Science encourages research activities among faculty and students. There are formal agreement/MoUs between the institution and other research laboratories, institutes and industry for research activities such as training of faculty and students, placing students as interns, carrying out short term research projects and availing instrumentation facility. Industrial visits to some premier institutes and industries are regularly organized. The College ensures regular interactions with eminent personalities from the institutes and industry by organizing guest lectures on the latest developments in the field of science and research. The College conducts faculty development programs and training programs in association with institutes and industry to increase skills and competency of faculty and to groom the students to meet the needs of the industry.

**Table 79: Collaborations of the College with research laboratories, institutes and industry to support research activities**

Sl. No.	Name of the Department	Title of workshops	Collaborators	Date
1.	Department of Microbiology	Genetically Modified Organisms – Pros and Cons	Indian Academy of Sciences, Bengaluru	3 <sup>rd</sup> - 4 <sup>th</sup> , March 2016

2.	Department of Biotechnology	FDP on Advances in <i>in-vitro</i> Cell culture and Functional Applications	DBT, New Delhi	6 <sup>th</sup> -10 <sup>th</sup> , July 2015
3.	The Oxford College of Science	Mindsmart	Creative Memory-Mind Smart	28-29 <sup>th</sup> July 2014
4.	Department of Chemistry	Laboratory Safety	Sigma Aldrich	21st October 2014
5.	Department of Biotechnology	Research Proposal Writing	DST, New Delhi	31 <sup>st</sup> October, 2014
6.	Department of Computer Science	WC-2599 -PHP and MySQL	IIT, Bombay	15 <sup>th</sup> May, 2014
7.	Department of Computer Science	WC-2600 -Java	IIT, Bombay	15 <sup>th</sup> May, 2014
8.	Department of Biochemistry	PCR, A glimpse on DNA Amplification	Eppendorf, India	8th January, 2013
9.	Department of Microbiology	FDP on Immuno molecular diagnostics and DNA amplification	VGST, GoK and Aristrogene, Bengaluru	9 <sup>th</sup> January - 8 <sup>th</sup> February, 2013
10.	Department of Computer Science	WC-2600 -PHP and MySQL	IIT, Bombay	3 <sup>rd</sup> September, 2013
11.	Department of Computer Science	WC-3505- PHP and MySQL	IIT, Bombay	9 <sup>th</sup> -10 <sup>th</sup> May, 2013
12.	Department of Microbiology	Primer design and Polymerase Chain Reaction	Biopractice, Bengaluru.	22 November 2013
13.	Department of Biochemistry	Phytochemical extraction methods and analysis	IKA India Pvt Ltd	5 <sup>th</sup> October, 2012
14.	Department of Microbiology	Biotechnological Aspects of Environmental Degradation and Protection	Indian Academy of Sciences, Bengaluru	13 <sup>th</sup> and 14 <sup>th</sup> October 2011
15.	Department of Biochemistry	Workshop on Bench Top NMR Spectroscopy	Col Pamer India Pvt.Ltd	10 <sup>th</sup> November 2011
16.	Department of Electronics	Circuit Synthesis using Xilinx-Cadence	Live wire, Bengaluru	27 <sup>th</sup> August 2015
17.	Department of Electronics	VLSI Designing using Or CAD	Live wire, Bengaluru	22 <sup>nd</sup> April 2015
18.	Department of Electronics	VLSI	Wipro Limited	27 <sup>th</sup> December 2012

19.	Department of Electronics	Digital Design Software – Xilinx13.1 imparted on Spartan 3E kit	IIT, Bombay	27 <sup>th</sup> July 2011
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The alumni students of the College who have become successful entrepreneurs render their support as consultants to the students who are aspiring to become entrepreneurs and establish their future startup companies.

The infrastructure and instrument facilities of the College are open to startup companies to work on their proof of concept. Few companies have already approached and further discussions are in progress.

**3.7.2 Provide details on the MoUs/collaborative arrangements (if any) with institutions of national importance/other universities/ industries/Corporate (Corporate entities) etc. and how they have contributed to the development of the institution.**

The College has played a proactive role in initiating collaborations with many important organizations and universities. The collaborations with Institutions of National and International reputation has enabled the College to strive towards the improvement of its research culture. The collaborations with Institutions have found to be greatly beneficial to the faculty members in exploring new research areas and also help students to increase

the extent of their knowledge. The long-term perspective plan of the College sets the targets of excellence in research. Collaborative endeavors and off campus visits help faculty and students to learn different approaches of solving research problems.

The College has MoUs/collaborative research with following Institutes/Industries.

**Table 80: Details of MoUs**

Sl. No.	Name of the Industry/Association	Contributions
1.	Liveon Biolabs Pvt.Ltd., Bengaluru	Refining curriculum, Internship, Projects, Industrial Visits and Guest Lectures
2.	Bhat Biotech India (P) Ltd., Bengaluru	
3.	Bioplus Ltd., Bengaluru	Internship, Projects, Industrial Visits
4.	GeneLife Biologics LLP, Bengaluru	Internship
5.	Xcyton Diagnostics (P) Ltd., Bengaluru	Internship, Industrial Visits and Guest Lectures
6.	Stelis Biopharma, Bengaluru	Refining curriculum
7.	Stelixir Biotech Pvt. Ltd., Bengaluru	Internship, Projects, Industrial Visits and Guest Lectures
8.	Optimus Pharma Consulting, Bengaluru	
9.	Sangenomics Research Lab, Bengaluru	
10	Avestagen Ltd., Bengaluru	



11	Raghavendra Biotech, Bengaluru	
12	Probiosys, Bengaluru	
13	Biozeen, Bengaluru	
14	Anthem Biosciences Pvt. Ltd, Bengaluru	
15	Chromous Biotech Pvt. Ltd., Bengaluru	
16	Biocon Ltd., Bengaluru	
17	Thermo Fisher Scientific, Bengaluru	
18	Lab Links Biotech Pvt.Ltd., Bengaluru	
19	Genotypic Technologies, Bengaluru	
20	Natural Remedies, Bengaluru	
21	Jubilant Life Sciences Pvt. Ltd., Bengaluru	
22	Novozymes	

The above collaborative programs benefited the institution in terms of building the brand image, Improvement of Quality, Hands on Experience, Kindle innovation, Skills development, Industry preparedness, Internship and placement etc.

**3.7.3 Give details (if any) on the industry-institution-community interactions that have contributed to the establishment / creation/up-gradation of academic facilities, student and staff support, infrastructure facilities of the institution viz. laboratories / library/new technology/ placement services etc.**

The interactions of the College with the industries have greatly helped in providing internship and placement to our students. Occasionally, our stakeholders support us in establishing industry linkages.

**3.7.4 Highlighting the names of eminent scientists/participants, who contributed to the events, provide details of national and international conferences organized by the College during the last four years.**

**Table 81: Selective list of eminent speakers visited the College during major scientific events.**

Sl. No.	Name of eminent person
1	Padma Bhushan Dr. B.N. Suresh, Former Director, Vikram Sarabhai Space Centre/Vikram Sarabhai Distinguished Professor, ISRO Headquarters, Bengaluru
	Padma Bhushan Prof. U. R. Rao, Chairman, KSTA / Former Chairman, ISRO Govt. of India

2	Padma Bhushan Prof. V. K. Aatre, Former SA to RM & DG, DRDO/Visiting Professor, DEC, Dept. of ECE, IISc, Bengaluru
3	Prof.G.Padmanabhan Former Director, IISc, Honorary Professor, IISc, Bangalore
4	Dr.Thimme Gowda, Vice Chancellor, Bangalore University
5	Dr. S.R.Rao Advisor, Department of Biotechnology, New Delhi
6	Dr.Ganesh Sambhasivam CEO, Anthem Biosciences, Bangalore
7	Dr HB Singh Officer-in-charge, Women Scientists Scheme &Cognitive Science Research Initiative DST, New Delhi
8	Dr. K.K. Bhutani Director,NIPER, Chandigarh.
9	Dr.Raaja Saab Dept. of Botany, Gulbarga University
10	MRN Murthy Professor, Indian Institute of Science, IISc, Bangalore
11	Dr.Thimme Gowda, Vice Chancellor, Bangalore University
12	Dr .Jitendra Kumar Managing director,Bangalore Bioinnovation centre dept IT,BT and S&T Govt Karnataka
13	Dr. Raghavendra Bhatta, Director NIANP (ICAR), Bangalore
14	Prof.T.Pullaiiah Professor, Sri Krishnadevaraya University, Ananthapur
15	Dr. Rajesh S. Gokhale Director, CSIR – Institute of Genomics and Integrative Biology , New Delhi
16	Dr. B.S. Ajaikumar Founder and Chairman , HCG – Health Care, Bengaluru
17	Dr. M.S. Ramakrishnan Associate Vice president, R & D, Biocon, Bengaluru
18	Mr.Anand Rangarajan Product Manager,Google India Pvt Ltd.,Bengaluru
19	Dr. V. Ravi, Registrar & Professor of Neurovirology, NIMHANS, Bangalore
20	Dr.Jagadish Mittur Dept of Microbiology and Cell Biology, Indian Institute of Science (IISc), Bangalore
21	Dr. Vasudeva Rao, Vice-President, Agri-technology, Metahelix, Bangalore
22	Dr. Deepshikha Chakravortty

Faculty, Dept. of Microbiology and Cell Biology, IISc

**Table 82: Details of national and international conferences organized by the College during the last four years:**

Sl. No.	Subject	Collaboration with	Year
1	Science Academies Lecture Workshop on GMO – Pros & Cons	Indian Academy of Sciences	2016
2	National Conference on Current Trends in Computer Science	-	2016
3	Workshop on Advances in In-vitro Cell culture and Functional Applications	DBT, New Delhi.	2015
4	National Conference on Science Technology and Productization-A means of growth	KSTA	2015
5	Workshop on Research Proposal Writing	DST, New Delhi.	2014
6	National Conference- Jnanarjana on ‘Beyond the frontiers in Science and Technology’	Self	2014
7	National Conference on Current Trends in Computer Science	Thought Net Technologies	2013 & 2014
8	Faculty Development Program and Special lecture on ‘Immuno Molecular Diagnostics’	VGST, GoK	2013
9	National Conference- Jnanarjana on ‘Bioactive Compounds and Therapeutics’	Industry Partners	2012

**3.7.5 How many of the linkages/collaborations have actually resulted in formal MoUs and agreements? List out the activities and beneficiaries and cite examples (if any) of the established linkages that enhanced and/or facilitated -**

Linkages/collaborations resulted in formal MoUs with Probiosys-Center of Excellence in Life Sciences, Bhat Biotech India (P) Ltd, Xcyton Diagnostics Pvt Ltd., Livon Biolabs Pvt. Ltd., Stelis Biopharma., Stellixir Biotech Pvt. Ltd., Genelife Biologics LLP, V.B. Medicare Pvt. Ltd., National Biotech, Pelican Biotech and Chemical Labs, Biozeen Pvt. Ltd., Sangenomics Research Labs, Optimus Pharma Consulting.

**a) Curriculum development/enrichment:**

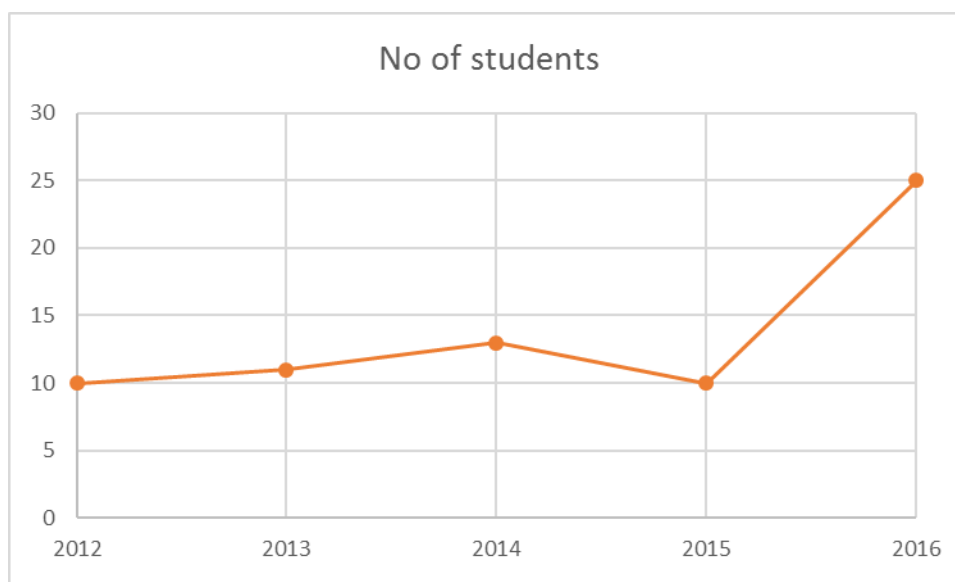
- ✚ The curriculum for the BiSEP program is developed in association with Syngene Pvt. Ltd., Strides Arco Lbs, Bhat Biotech, Aprus Biomedical Innovations, Generi Kairos consulting Co. Bengaluru and Pelican Biotech and Chemical Labs, Chertala, Kerala

- ✚ The curriculum for BTFS program has been developed in collaboration with the industry personnel and the steering committee members of KBITS, GoK.
- ✚ The College has conducted various FDPs and enrichment programs to augment skill and knowledge of the faculty thereby benefitting the students. To name a few - Advances in *in-vitro* Cell culture and Functional Applications, Immuno molecular diagnostics and DNA amplification, VLSI Designing using or CAD, WC-2600 -PHP and MySQL in association with NIANP, Bengaluru, SK Unibersity, Ananthpur, Aristogene, Bengaluru, IIT, Mumbai and Live wire, Bengaluru respectively as mentioned in the following table.
- ✚ The association with industries/institutes has facilitated collaborative short term research project work that has benefitted the students to carry out their project work prescribed in curriculum successfully.

#### b) Internship/ On-the-job training:

- ✚ The strong partnerships forged by the College with the industries and institutes have enormously helped in securing internships for students of all courses. The linkages

and the industry exposure benefit the students. One such successful example is Biotechnology Finishing School Program, wherein students are placed as interns and later absorbed by the same industry as employees. The UG and PG students too are placed for short term projects in reputed industries and institutes.



#### c) Summer placement

- ✚ The linkages established by the institution have enhanced its academic profile and has resulted in increase in the number of companies considering our students for short term projects, summer trainees and interns.

**Table 83: Summer placements**

Sl. No.	Name Of Student	Company Name	Year
1	Shailesh	HDFC	2017
2	Siddraju	Embdes Technologies	2016
3	Subin	Reliance Jio, Bengaluru	2016
4	Abhishek Bhati	WellCrop technologies	2015
5	Tejendra Raju	Embdes Technologies	2015
6	Mehul Patel	V India Bio Synergy Pvt. Ltd.	2015
7	Subin	Jubelia	2015
8	Sidhart Dubey	Genelon lifesciences	2014
9	Vinit Rambhia	Oriens Pvt Ltd.	2013
10	Subin	Serco	2013

**d) Faculty exchange and professional development**

- ✚ Faculty exchange programs are not yet started at the College due to many constraints. But the College regularly organizes faculty development programs for professional development on various aspects by eminent subject experts. The College also encourages the faculty to attend refresher courses and FDPs outside the campus.

**Table 84 a : FDP (Organized through Collaboration)**

Sl. No.	Name of organizer	Title of FDP/workshops	Collaborators	Beneficiaries	Date
1	Department of Mathematics	MATLAB	Christ University, Bangalore	Faculty of Mathematics and Electronics	29 <sup>th</sup> March 2016
2	Department of Biotechnology	FDP on Advances in in-vitro Cell culture and Functional Applications	DBT, New Delhi	Faculty of Biotechnology, Microbiology and Biochemistry	6th -10th , July 2015
3	The College of Science	Mind your teaching	Mind Smart Technologies Pvt. Ltd.	All the faculty of the College	28th and 29th July 2015

4	Department of Biotechnology	Research Proposal Writing	DST, New Delhi	All the faculty of the College	31st October, 2014
5	Department of Microbiology	FDP on Immuno molecular diagnostics and DNA amplification	VGST, GoK and Aristrogene, Bengaluru	Faculty of Biotechnology, Microbiology and Biochemistry	9th January - 8th February, 2013
6	Department of Microbiology	Primer design and Polymerase Chain Reaction	Biopractice and Gangagen Biotechnologies Pvt. Ltd. Bengaluru.	Biotechnology, and Biochemistry	22 November 2013
7	Department of Chemistry	Laboratory Safety	Sigma Aldrich	Faculty of chemistry	21st October 2014
8	Department of Microbiology	Immuno Molecular Diagnostics and DNA amplification	Bhat Biotech Pvt Ltd	Faculty of Microbiology	16th to 18th March 2011

#### e) Research

- The UG and PG students are placed for short term projects in reputed industries and institutes. The research undertaken by faculty and students in association with industries and institutes has led to research publications in reputed journals. Please refer to annexure 3.7.5 for details.

#### f) Consultancy:

- The institution provides consultancy on its own capacity

Sl. No.	Name of the company	Nature/type of consultancy
1	Wellcrop Biotech Pvt. Ltd.,	Mentorship Have provided Biofertilizer consortium for field trials, will be released as a product after validation
2	Rishi Herbal Technologies Pvt. Ltd., Bengaluru	Phytochemicals isolation, purification and screening facility
3	Orchid Tree	Under Discussion

Additionally, the Department of Biotechnology is providing following academic consultancy services:

- Validating the genomic and Plasmid DNA Isolation kits developed by Bhat Biotech, Bengaluru.

✚ Extending the instrumentation facility for organizing scientific workshops in association with other Departments.

**g) Extension**

**Table 85: List of Extension Activities**

SI No	Name of Program	Activity
1	Orientation Program at Samarthanam Trust for Physically Disabled students, HSR Bengaluru.	Session on Computer Basics
2	Computer Awareness Program to students of First Grade Govt. High School, Agara, Bengaluru	Session on Computer Basics
3	Physics Olympiad Examinations by Indian Association of Physics Teachers (IAPT)	Observer
4	National Graduate Physics Examinations (NGPE) conducted at Maharani Lakshmi Ammanni College	Core committee member
5	One day workshop on rDNA technology for class XI and XII students of NPS school, Bengaluru	Workshop on rDNA technology applications in Diagnostic Biology
6	Awareness programs of Hygiene to rural population under Swach Bharath Mission	Hygiene awareness
7	Awareness programs to Residents of HSR layout, Bengaluru on Rabies, Hepatitis etc.	Awareness programs

**h) Publication:**

The research undertaken by faculty and students in association with industries and institutes has led to research publications in reputed journals.

**i) Student Placement**

The College has played a proactive role in initiating collaborations with many important organizations and universities. The collaborations with industries has enabled the College wherein many students are selected for internship by many industries and corporate sectors. One such successful example is Biotechnology Finishing School Program, wherein students are placed as interns and later absorbed by the same industry as employees. The College has dedicated Placement Cell, which assists the students for applying and getting internships and the eligible students gets placed.

**j) Twinning programs**

So far there are no examples under this program. These are being discussed and will be implemented in the framework of Bangalore University regulations.

**k) Introduction of new courses**

✚ Post graduate Diploma in Cellular and Molecular Diagnostics under Biotechnology Finishing School Program was started in 2012.

✚ Add-on programs to students on various courses such as CADD and MMD, SAS, Memory skills and pedagogical techniques.

### **l) Student exchange**

The College is affiliated to Bangalore University and follows the regulations prescribed by the University for UG as well as PG courses. As per curriculum, students are not permitted to take up such exchange programs.

**m) Any other Nil**

### **3.7.6 Detail on the systemic efforts of the institution in planning, establishing and implementing the initiatives of the linkages/collaborations.**

The College has constituted a Research Committee which takes the following initiatives

- ✚ The committee members maintain the data base of all the details related to linkages/collaborations and benefits obtained.
- ✚ The committee seeks more collaboration with industries and institutes for carrying out research.
- ✚ Develop research culture among both faculty and students by organizing workshops, training programs, guest lectures and industry visits.
- ✚ Conduct workshops to both faculty and students in association with industry.
- ✚ Facilitate interaction with eminent professionals of national level for the latest developments in the field of science.

### **Any other relevant information regarding Research, Consultancy and Extension which the College would like to include.**

The College has already submitted proposal for Atal Incubation Center (AIC) under Atal Innovation Mission Program, Govt. of India and Technology Business Incubators (TBI), Govt. of Karnataka to set up Incubation center to support Startup companies. Numerous collaborations with many industries will be under taken to augment the activities of the Incubation centers.

The College has been sanctioned DST-FIST program and also short listed for BiSEP program (BTFS second cycle) of GoK. This will greatly enhance the infrastructure as well as research culture and research quality.



## **CRITERION IV: INFRASTRUCTURE AND LEARNING RESOURCES**

### **4.1 Physical Facilities**

#### **4.1.1 What is the policy of the Institution for creation and enhancement of infrastructure that facilitate effective teaching and learning?**

Colleges' constant endeavour has been to create state-of-the-art infrastructure catering to the technological demands in the academic field to facilitate effective teaching and learning. Creation and enhancement of infrastructure is an ongoing process in the institution. The requirement for enhancement of infrastructural facilities is assessed by various needs like the introduction of new courses, increase in the intake of students, changed curriculum demanding the introduction of new laboratories, diversification of courses, need for introducing the technological innovations, etc. The IQAC collects infrastructural requirement from various stakeholders and analyzes the infrastructure requirement of the institution. These requirements are discussed in the strategy meet, then with the Management and the cost analysis is done with the technically competent persons. IQAC monitors assessment and implementation as per the up-gradation and procurement policy.

The management of the college also takes an effective and proactive stand in allocating resources for college development and major infrastructural projects. Infrastructure funding is received from agencies like UGC, VGST K-FIST/CISEE/SMYSR, and KBITS - BTFS etc. Effective and systematic utilization of the funds is carried out through the Heads of the Department, with special emphasis to provide the best possible infrastructure for the academic and research activities, using advanced technology.

#### **4.1.2 Detail the facilities available for**

**a) Curricular and co-curricular activities - classrooms, technology enabled learning spaces, seminar halls, tutorial spaces, laboratories, botanical garden, Animal house, specialized facilities and equipment for teaching, learning and research etc.**

**b) Extra-curricular activities - sports, outdoor and indoor games, gymnasium, auditorium, NSS, NCC, cultural activities, public speaking, communication skills development, yoga, health and hygiene etc.**

#### **a) Curricular and co-curricular activities**

The curricular and co-curricular aspects have unleashed new opportunities for students to be nurtured as global citizens as they are involved in diverse programs. The primary consideration while enhancing infrastructure in the College, has been to see that it is

optimally functional, and meets the present requirements of the students and staff of the College.

**Infrastructure for academic Activities:  
OHP, LCD projectors,  
interactive boards,  
seminar halls etc.**

The integration of technology has enhanced the quality of education and has opened new vistas of learning. The SMART CLASS offers students a unique educational experience and is undoubtedly a resourceful technological tool to complement the teaching-learning process. Efforts are being made to maximize the use of ICT.

The details of infrastructure are added as annexure 4.1.2 (a)

**Table 86: Infrastructure for academic activities**

Laboratory Facility	Number	Details
Biochemistry	4	Analytical Biochemistry lab Molecular Biology lab Clinical Biochemistry lab Enzymology and Protein Chemistry lab.
	1	Preparation room
	1	Store room
	1	Instrumentation room
	1	Research lab
Biotechnology/ BT Finishing School (BTFS)	4	1. Molecular Biology lab. 2. Plant and Animal Biotechnology lab. 3. Cell biology and Immunology lab. 4. Biochemistry and Microbiology lab.
	1	Preparation room
	2	Store room
	1	BTFS lab with Central Instrumentation Facility
	1	Clean room / Animal cell culture facility
	1	Plant tissue culture facility
	1	Research lab
Microbiology	3	1. Immunology/ molecular biology lab. 2. Bacteriology and Mycology lab 3. Fermentation and Bioprocess lab.
	1	Preparation room
	1	Store room
	3	Aseptic chamber
	2	Instrumentaion facility
	1	Research lab

Computer Science and Applications	6	1. Sun Solaris lab 2. DBMS / HDL lab 3. JAVA lab – 1 4. JAVA lab – 2 5. SQL lab 6. UNIX / Assembly Language Programming lab
	1	Centralized Server/Networking Room
	1	Blade Server Room
	1	Research Lab
Fashion Designing	4	Pattern making lab Textile testing lab Sewing lab CAD lab Design lab
	1	Trial room
Physics	5	Optics lab Electronics lab Atomic and Molecular Physics lab Condensed Matter Physics lab Nuclear Physics lab
Chemistry	3	Physical Chemistry Lab Inorganic Chemistry Lab Organic Chemistry Lab
	1	Preparation room
	1	Store room
	1	Instrumentation room
Statistics	1	Data Analytics lab
Zoology	2	1. Vertebrate / invertebrate lab 2. Ecology / Physiology lab
	1	Museum
Genetics	3	1. Biomedical Genetics lab 2. Immunogenetics lab 3. Cytogenetics lab
	1	Store room
	1	Instrumentation room
Electronics	4	1. Analog lab 2. Microprocessor and Digital Electronics lab
Mathematics	1	Mathematics Simulation lab
English	1	English lab with WORDSWORTH software Mass Comm Studio

The details of lab facilities, equipments and software available for Teaching Learning are in annexure 4.1.2 (b)

The College offers a plethora of co-curricular activity under Choice Based Credit System (CBCS) which serve to be a perfect platform for students to charter new routes of self - discovery.

**Table 87: Co-curricular activities**

Sl.No.	Co-curricular activities	Facility
1	Physical Fitness	Auditorium lobby with audio/visual facility, Professional trainer
2	Yoga	Yoga room
3	Community Services	Exclusive display boards, Activity centre
4	Embroidery, Tie & dye	Textile testing lab; Embroidery machines
5	Kannada kali	LCD facility, audio-visual facility with Kannada kali software
6	Literary association	English lab with WORDSWORTH software, Classrooms with LCD facility.
7	Personality Development	Interactive Classrooms.
8	Gardening	Tools like Axe, Sickle, pitchfork, spade, water sprayer etc., Gardner

**b) Extra -curricular activities**

Sport plays a vital role in shaping up the personality and fitness of a person. The facilities and encouragement for wide range of sports activities enables every individual to pursue the sport of their choice.

Facility for indoor games like chess, carom, table tennis, etc. are available. The field adjoining the College and BBMP ground in HSR layout is being used for outdoor track and field events like badminton, volley ball, throw ball, basket ball, hand ball and cricket.

The sophisticated Auditorium with latest acoustic facility is extensively used by national daily Deccan herald to conduct Fashion Show for its Metro Life Edition in association with Department of Fashion and Apparel Design every year consistently from last seven years.

Other facilities are as added in annexure 4.1.2 (a)

**4.1.3 How does the institution plan and ensure that the available infrastructure is in line with its academic growth and is optimally utilized? Give specific examples of the facilities developed/augmented and the amount spent during the last four years  
(Enclose the Master Plan of the Institution / campus and indicate the existing physical infrastructure and the future planned expansions if any).**

The Institution has upgradation and procurement policy for optimum utilization of available infrastructure. The governing council of the institution, the committees formed under IQAC and Departments identify, evaluate and monitor the proper use of available infrastructure. IQAC put forth the infrastructural requirements to the management to plan ahead. The enhancement of infrastructural facilities is assessed based on circumstantial demand. This ensures that the available infrastructure is in line with its academic growth.

**Table 88: Newly augmented facility**

Sl.No.	Facility	Department	Number
1	C and DSP facility	Computer Science & Applications	1
2	Optics lab	Physics	1
3	Atomic and Molecular Physics Lab	Physics	1
4	Nuclear Physics lab	Physics	1
5	Condensed matter Physics lab	Physics	1
6	Research lab	Biochemistry	1
7	Research lab	Biotechnology	1
8	BTFS facility	Biotechnology	1
9	Research lab	Microbiology	1
10	Data Analytics lab	Statistics	1
11	Maths Simulation lab	Mathematics	1
12	Cafeteria	TOCS	1
13	Gymnasium/indoor sports	TOCS	1
14	Class rooms (70 seater)	TOCS	3
15	Seminar Hall (200 seater)	TOCS	1

**Table 89: Budget details**

Year	2011-12	2012-13	2013-14	2014-15	2015-16
Purpose	Amount ₹	Amount ₹	Amount ₹	Amount ₹	Amount ₹
Building construction	0	0	0	0	5321104
Equipments	503029	2071683	412364	137024	1083314
Furniture/Fixture	601055	0	0	0	186063
Computer/Software	85000	5775	104445	85,000	0
Library	576866	1439629	360754	75670	356813
Teaching Aid	112836	0	0	0	0

Institutional plan is attached in annexure 4.1.3

**4.1.4 How does the institution ensure that the infrastructure facilities meet the requirements of students with physical disabilities?**

The following institutional facilities ensure adequate comfort to the differently abled:

- ✚ Ramp facility wherever required
- ✚ Lifts (4 in number) with an attendant
- ✚ Western style wash rooms on all the floors
- ✚ Wide corridors to accommodate wheel chairs
- ✚ Spacious class rooms with flexible chairs and desks
- ✚ Provision for scribes during examination

**4.1.5 Give details on the residential facility and various provisions available within them:**

- **Hostel Facility – Accommodation available**

The hostel at The Oxford College is truly a home away from home with about 500 rooms. Separate residential areas for boys and girls have adequate facilities to make the students' stay a comfortable one. Each hostel has round the clock security. Other facilities like safe drinking water, mess with hygienic and nutritious food, served in a spacious dining area, sports centre and study room with internet connectivity, ensure the overall well-being of the hostelites. The hostels are efficiently supervised by the wardens

**Table 90: Details of Hostel Facility**

Hostels	Number of rooms occupied	Capacity Mention single occupant/2sharing also specifically	Occupancy
Girls	52	Single, two & four sharing	83
Boys	35	Single and two sharing	55

- **Recreational facilities, gymnasium, yoga centre etc.,**

Fitness equipments like Circuit Training Set, Treadmill, Cycling, Dumbles, Parallel Bar, Weight Plates, Push-up stand, Warm down Mat etc. are available in the Gym for students.

- **Computer facility including access to internet in hostel**

The hostel has a room dedicated for IT facility, where students are allowed to access the internet facility.

- **Facilities for medical emergencies**

The hostel has a hospital situated within 400 meters. The hospital is used by the students for all medical emergencies.

- **Library facility in the hostels**

The hostel is provided with reading room with news papers and periodicals.

- **Internet and Wi-Fi facility**

Available

- **Recreational facility-common room with audio-visual equipments**

Available

- **Available residential facility for the staff and occupancy**

The College provides the residential facility for the single female and male faculty in the hostel based on request. The Oxford Educational Institutions have the staff quarters facility at Bommanahlli campus, Bengaluru. Staffs are provided accommodation on request.

- **Constant supply of safe drinking water**

The water purifier is installed for drinking water supply.

- **Security**

Separate wardens for girls and boys hostel work in shifts to take care of the hostelities and ensure safety of the students. The hostel has the CCTV camera for surveillance with 24/7 security.

#### 4.1.6 What are the provisions made available to students and staff in terms of health care on the campus and off the campus?

The College has a health centre with a doctor visiting the campus on call basis. Medical check up for both students and staff is conducted annually.

- ✚ The College also organises special lectures on health awareness and hygiene.
- ✚ The students are also counselled by the counselling cell to understand and help to solve the personal problems.
- ✚ The staffs are covered with the ESI facility.
- ✚ There is a medical and dental College under The Oxford Educational Institutions. The students and the staff can avail free consultancy, health check-up and dental check-up.

#### 4.1.7 Give details of the Common Facilities available on the campus –spaces for special units like IQAC, Grievance Redressal unit, Women’s Cell, Counselling and Career Guidance, Placement Unit, Health Centre, Canteen, recreational spaces for staff and students, safe drinking water facility, auditorium, etc.

**Table 91: Details of the common facilities available in the campus**

Name	Space	Capacity	Facility
IQAC	10 Sq. mts	15	Furniture, Almerah
Grievance Redressal Cell	7 Sq.mts	03	Furniture, Well-being posters
Women’s Cell	8 Sq.mts	03	Furniture
Career Guidance and Placement Cell	2 rooms of 45 Sq mts each	04 in each room	Furniture, Computer, Telephone, Air Conditioner
Health Centre	44 Sq.mts	2	Furniture with two beds, stretcher, wheel chair
Safe Drinking Water Facility	One in each Floor	50 ltrs	Water cooler with purifier
Auditorium	613 Sq. Mts	500	Green room, audio visual control room, auditorium

			lounge with basic amenities quadrangle
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The open spaces, College auditorium, auditorium lounge, provision for screening movies, and audio system offer recreational facilities to engage students in leisure hours. There is ample facility for students and staff to indulge in both indoor and outdoor games.

## 4.2 Library as a Learning Resource

### 4.2.1 Does the library have an Advisory Committee? Specify the composition of such a committee. What significant initiatives have been implemented by the committee to render the library, student/user friendly?

Yes, the library has an active Advisory Committee to guide, develop, initiate and improve the services of library. The committee members meet twice in a year to discuss and analyse the issues / services of support system offered and reviews the progress.

**Table 92: Composition of Library Advisory Committee**

Sl. No.	Name	Designation
1	Principal, The Oxford College of Arts	Chairperson
2	Vice Principal & Dean Academics, The Oxford College of Science	Member Secretary
3	Chief Librarian, The Oxford College of Science	Coordinator
4	Principal, The Oxford College of Science	Member
5	Principal, The Oxford College of Business Management	Member
6	Principal, The Oxford College of Law	Member
7	Senior Professor, The Oxford College of Science	Member
8	Senior Professor, The Oxford College of Business Management	Member
9	Head, Department of Computer Science and Application, The Oxford College of Science	Member
10	Student Representation from M.Sc.	Student Member
11	Student Representation from MCA	Student Member
12	Student Representation from M.Com	Student Member
13	Student Representation from Law	Student Member
14	Student Representation from MS.Com	Student Member

Significant initiatives to ensure the library to be user friendly are:

- ✚ Monitor the qualitative and quantitative collection of books and journals based on the requirement
- ✚ Provide access to books and other resources including free access to internet and digital library
- ✚ Cater value added services to meritorious, differently abled users.
- ✚ Display of new arrivals and search facility through OPACs



- ✚ Maintain open access to students, faculty and research scholars
- ✚ Bay guides for effective usage of library resources
- ✚ Automated library
- ✚ Inter library loan facility & sharing of resources among other libraries
- ✚ Organise book exhibitions
- ✚ Orientation for new entrants

#### 4.2.2 Provide details of the following:

\* **Total area of the library (in Sq. Mts.)** 927.680 sq mts spread across 4 levels.

\* **Total seating capacity** 256

\* **Working hours (on working days, on holidays, before examination days, during examination days, during vacation)**

Week days (Monday to Friday) 9:00 AM to 6:00 PM

Weekends (Saturday) 9:00 AM to 4:00 PM

During Exam: 9:00 AM to 7:00PM

\* **Layout of the library (individual reading carrels, lounge area for browsing and reading, IT zone for accessing e-resources).**

Text Book Section, Reference Book Section, Circulation Section, Journals Section, Periodicals Section, Competitive Examinations Study corner, Property counters, Students reading Hall, Faculty/Staff reading Hall, Technical Section, Newspaper Section, Separate space for browsing Internet, Digital Library to access to digital information, Separate Lounge area for relaxed reading.

#### 4.2.3 How does the library ensure purchase and use of current titles, print and e-journals and other reading materials? Specify the amount spent on procuring new books, journals and e-resources during the last four years.

- ✚ The library thrives to procure relevant and latest books/ journals / e- resources or any other reading materials available in the market.
- ✚ Library rely on book reviews and best sellers information available in the news papers, television, and magazines and catalogues to select new books / journals in the particular field.
- ✚ To ensure this process, Library purchase books / journals / e- resources or other reading materials based on the requirements of the faculty and students.
- ✚ Once the quotation received by the vendors on books selected in the exhibition, librarian will take approval from the Principal and proceeds to procure the same. Every year a stipulated budget is allocated to each Department based on their requirement and student strength.

**Table 93: Amount spent in the last 5 years**

Library holdings	Year -1 2012-13		Year -2 2013-14		Year -3 2014-15		Year -4 2015-16		Year -5 2016-17	
	No.	Total cost	No.	Total cost	No.	Total cost	No.	Total cost	No.	Total cost
	Text books	590	239320	578	357591	181	75670	474	358553	383
Reference Books										
Journals /Periodicals	93	1092484	93	1272343	94	1152717	94	1214065	94	1214065
e-resources (IEEE)	--	303537		376200		384237		-----		-----
Any other (specify)		11500		11500		11500		11500		11500
DELNET	--	5000	--	5000	--	5000	--	5000	....	5000
INFLIBNET										

**4.2.4 Provide details on the ICT and other tools deployed to provide maximum access to the library collection?**

\* **OPAC:** The online public access catalogue (OPAC) system is in place to facilitate the readers to search the information through keywords, author, title, etc.

\***Electronic Resource Management package for e-journals:** The library has subscribed the e- journal package from INFLIBNET, DELNET and IEEE.

\* **Federated searching tools to search articles in multiple databases:** Search aggregator, Index / web indexing and web search query are the three major federated search engines used in the library to search the articles / information in the multiple databases.

\* **Library Website:** The library is having a separate web portal linked to College / Institution website, which allows students to remote access via internet.  
library website <http://hsrinformationcentre.webs.com>

\* **In-house/remote access to e-publications:** The students and faculty can access in-house/remote e-publications through website of the library  
[hsrinformationcentre.webs.com](http://hsrinformationcentre.webs.com)

\* **Library automation:** The library is completely automated.

\* **Total number of computers for public access:** 24 computers are reserved for readers in the library.

\* **Total numbers of printers for public access:** One printer cum photocopy machine is available for printing. All the computers are connected to common printer/Xerox machine.

\* **Internet band width/ speed:** The total internet speed is more than 16 Mbps.

- \* **Institutional Repository:** Yes, the faculty publications, question papers and other e-resources are uploaded and used in digital library.
- \* **Content management system for e-learning:** In process
- \* **Participation in Resource sharing networks/consortia (like INFLIBNET):** Yes, the library is participating with DELNET and INFLIBNET consortia.

#### 4.2.5 Provide details on the following items:

- \* **Average number of walk-ins:** 200 per day
- \* **Average number of books issued/returned:** 100 plus per day
- \* **Ratio of library books to students enrolled:** 1:16
- \* **Average number of books added during last three years:** 1245 books
- \* **Average number of login to OPAC:** 20 per day
- \* **Average number of login to e-resources:** 30 per day
- \* **Average number of e-resources downloaded/printed:** Approx 200 pages per day
- \* **Number of information literacy trainings organized:** 2 per year
- \* **Details of “weeding out” of books and other materials:** Out dated, old editions and torn books are separated from the active stock. The library follows the State government rules for weeding out of old and missing books.

#### 4.2.6 Give details of the specialized services provided by the library:

- ✚ **Manuscripts-**Yes, the library collects the manuscripts and preserves in the digital library.
- ✚ **Reference:** Available. All standard reference books of competitive examinations like NET / SLET, Banking, KPSC / UPSC etc are provided in reference section. Reference queries of the readers are effectively handled by the library staff.
- ✚ **Reprography:** The library has facility of photocopying services for the readers
- ✚ **ILL (Inter Library Loan Service):** Available with sister concern institutions.
- ✚ **Information deployment and notification** –Yes, the library has a separate notice board and also display the new arrivals in the specific racks, computer terminals, classroom notice boards and library websites.
- ✚ **Download-** Library allows the readers to download the information from the Books, e-journals, and online databases etc.
- ✚ **Printing-** Available. Print out facility provided to students and faculty.
- ✚ **Reading list/ Bibliography compilation-** Available and is maintained through OPAC system
- ✚ **In-house/remote access to e-resources-** Yes, the library provides remote access to e-resources through their web sites (<http://hsrinformationcentre.webs.com>)
- ✚ **User Orientation and awareness-**Yes, the new students are given orientation on library resources and its usage. All the readers are updated about new arrivals, online databases etc., through notification time to time.

- ✚ Assistance in searching Databases-Yes, the library personnel provide the assistance to the readers whenever needed.
- ✚ INFLIBNET/IUC facilities- Available. Separate login ID and passwords is provided to each Department. However, students log in using common ID.

#### **4.2.7 Enumerate on the support provided by the Library staff to the students and teachers of the College.**

The following support is rendered by the library staff to the readers:

- ✚ Circulation Services
- ✚ Clipping service
- ✚ Bibliographic compilation
- ✚ Information display and notification service
- ✚ Reference/referral service
- ✚ Photocopy and printing service
- ✚ User orientation/Information Literacy service
- ✚ Resource sharing/ILL
- ✚ Best practices to enhance students reading habits
- ✚ Internet facility and digital resources
- ✚ Issue of extra books on:
  - (i) Competitive exams
  - (ii) Personality Development
- ✚ Organization of book exhibition
- ✚ Special Lectures on
  - (i) Library awareness Program
  - (ii) Use of Information Communication Technology
  - (iii) Organizing book talks etc.

#### **4.2.8 What are the special facilities offered by the library to the visually/physically challenged persons? Give details.**

- ✚ The differently abled students are personally assisted by the library staff.
- ✚ Computer systems are kept in the ground floor for their ease
- ✚ The College is not having any visually challenged students.

#### **4.2.9 Does the library get the feedback from its users? If yes, how is it analysed and used for improving the library services. (What strategies are deployed by the Library to collect feedback from users? How is the feedback analysed and used for further improvement of the library services?)**

Yes, every year library obtains feedback from the students through the suggestion box, feedback forms online and offline

- ✚ Verbal feedback is also entertained by the students
- ✚ The appropriate corrective measures are taken by discussing in the Library Advisory Committee meetings for further improvement of the library

### 4.3 IT Infrastructure

#### 4.3.1 Give details on the computing facility available (hardware and software) at the institution.

- ✚ The Oxford College of Science has established a strong and state-of-the-art ICT infrastructure facility to support academic, administrative and research activities with the latest hardware and software of the digital world
- ✚ The networked environment spread across campus enables students and staff to use information and communication technology for enhancing their knowledge across the disciplines
- ✚ Smart boards and LCD projectors are extensively used to play multimedia presentations in the class rooms for more understanding
- ✚ Extensive email and mobile messaging is done to establish communication links amongst the stakeholders. This has drastically reduced the usage of paper, thus contributing to the environmental benefit. It has also helped in dissipating the time lag inherent in the older system of issuing notices in hard copies
- ✚ Latest technological tools and resources are used to communicate, store and manage information that helps in creating various teaching & learning tools
- ✚ The library is fully automated, with an electronic database of all the books. OPAC facility is available for the users. The library subscribes to NLIST that provides remote access
- ✚ A unique practice of accessing University examination question paper through the library hyperlink in the website is in place

**\*Number of computers with Configuration (provide actual number with exact configuration of each available system)**

Six excellent state-of-the-art labs are setup in the College. These labs house a total of 557 computers connected to the network, and the College has a total of 625 computers.

**Table 94: Details of the hardware and software**

Lab Description	Number	Configuration of hardware
Lab 1: DBMS/HDL lab	60	<p>Model: T5000 Thin Client</p> <p><b>Operating Systems:</b> Microsoft Windows XPe, Service Pack 2</p> <p><b>Processor/Speed:</b> AMD Geode NX 1500</p> <p><b>Standard Memory:</b> 1GB2 or 512 MB Flash512 MB or 256 MB DDRSDRAM1</p> <p><b>Video:</b> 2048x1536, 32 bit @60 Hz</p> <p><b>I/O and peripheral support:</b> Enhanced PS/2 with Windows keys (104 keys) keyboard &amp; mouse included, VGA-type video output (DB-15), local and/or network printer support</p>

		<p><b>Ports and jacks:</b> 6 USB 2.0, 1 serial, 1 parallel, 2 PS/2, 1 RJ-45 PCI slot (optional)</p> <p><b>Expansion module:</b> 1 optional</p> <p><b>Terminal Emulations:</b> Teamtalk for Windows, multiple emulations and Personalities.</p> <p><b>Server OS: Compatibility/support:</b> Microsoft Windows 2003 Server family, Microsoft Windows 2000 Server family (except datacenter addition), Microsoft Windows NT Server 4.0 family, Citrix Presentation Server 4.0; Citrix MetaFrame Presentation Server 3.0; Citrix MetaFrame XP Presentation Server; Citrix MetaFrame 1.x; Linux and UNIX ® servers</p> <p><b>Dimensions (h×w×d):</b> 250.18 x 65.78 x 205.48 mm/9.85 x 2.59 x 8.09 in</p> <p><b>With stand:</b> 271.09 x 110 x 237.1 mm/10.67 x 4.33 x 9.33 in</p> <p><b>Power:</b> Worldwide auto-sensing 100-240 VAC, 50-60 Hz energy- Saving automatic power-down, surge-tolerant, 40W power Supply.</p> <p><b>Temperature range:</b> 50° to 104° F (10° to 40° C) (operating) 50° to 95° F (10° to 35° C) (operating, when using the Quick Release with a flat Panel monitor or PCI expander) -22° to 140° F (-30° to 60°C) (Non-operating)</p>
<p>Lab 2: Sun Solar system Thin Clients served by two servers of SUN X4150</p>	<p>60</p>	<p><b>Graphics:</b> 24-bit graphics, 17-inch thin film transistor (TFT) and flat-panel liquid crystal display (LCD), up to 1280x1024 resolutions Maximum @ 75 Hz</p> <p><b>Peripheral interface:</b> Four powered USB ports, two serial ports, one RGB projector port, and one DB15 port for display input.</p> <p><b>Networking:</b> 10/100 Base-T</p> <p><b>Input devices:</b> USB keyboard, USB mouse, smart card reader ISO7816-1</p> <p><b>Audio:</b> CD-quality audio in/out, microphone, headphone jacks, stereo line level in Operating environment, Open Source Desktop Solaris-10.</p> <p><b>Monitor:</b> Integrated 17-inch TFT and LCD flat-panel display</p> <p><b>Adjustments:</b> Monitor tilt</p> <p><b>Dimensions and weight:</b> • Width: 376.6 mm • Depth: 191.0 mm • Height: 407.0 mm • Weight: 5.2 kgs</p>

Lab 3: Java Lab 1	60	<p><b>Chipset:</b> Intel® Q43 Express Chipset w / ICH10D  <b>Processor:</b> Intel Core™ 2,Duo E7400,2.8Ghz,3MB,1066 FSB  <b>Memory:</b> 2GB(2*1)800MHz DDR2 SDRAM  <b>Video Card:</b>Integrated Intel® Graphics Media Accelerator  <b>Monitor:</b> Wide screen flat panel Analog; Dell 16” E1609W  <b>HDD</b> :160GB SATA HDD @7200 RPM</p>
Lab 4: Java Lab 2	60	<p><b>Chipset:</b> Intel® Q43 Express Chipset w / ICH10D  <b>Processor:</b> Intel Core™ 2,Duo E7400,2.8Ghz,3MB,1066 FSB  <b>Memory:</b> 2GB(2*1)800MHz DDR2 SDRAM  <b>Video Card:</b>Integrated Intel® Graphics Media Accelerator  <b>Monitor:</b> Wide screen flat panel Analog; Dell 16” E1609W  <b>HDD</b> :160GB SATA HDD @7200 RPM</p>
Lab 5: SQL lab	60	<p><b>Chipset :</b> Intel ® Q33 Express Chipset  <b>Processor:</b> Intel Core TM 2 Duo 7400 , 2.8 GHz , 3MB L2 Cache  <b>Memory :</b> 2GB DDR non-ECC SDRAM, 800 MHz  <b>Video Card:</b> Integrated Video, Intel R GMA 3100  <b>Monitor :</b> V 185w 18.5 inch wide TFT  <b>HDD</b> :160 GB SATA NCQ HDD SMART IV 3.0 GB/s 7200RPM  <b>Graphics:</b> Integrated Intel Graphics Media Accelerator 3100</p>
Lab 6: UNIX and Assembly language lab	60	<p><b>Chipset :</b> Intel ® Q33 Express Chipset  <b>Processor:</b> Intel Core TM 2 Duo 7400 , 2.8 GHz , 3MB L2 Cache  <b>Memory :</b> 2GB DDR non-ECC SDRAM, 800 MHz  <b>Video Card:</b> Integrated Video, Intel R GMA 3100  <b>Monitor :</b> V 185w 18.5 inch wide TFT  <b>HDD</b> :160 GB SATA NCQ HDD SMART IV 3.0 GB/s 7200RPM  <b>Graphics:</b> Integrated Intel Graphics Media Accelerator 3100</p>

- **Computer-student ratio - 1:1**
- **Stand alone facility** - Available
- **LAN facility**
  - ✚ Campus is interconnected through intelligent networking supported by HP switches and routers.
  - ✚ Ethernet card is used as the physical medium of transfer of data at the rate of 100 Mbps.
  - ✚ Physical implementation of the LAN has been structured through star topology which is supported by Managed Switches. All the blocks in the campus are connected through UTP cable and for inter campus connectivity, Fiber Optic cables are used.
- **Wifi facility** - Campus is Wi-Fi enabled with **16Mbps** bandwidth.
- **Licensed software**

**Table 95: Software/Tools**

Sl.No.	Operating System
1	Windows Server 2003 Enterprise Edition
2	Windows (XP, 2003, 2007, 2008)
3	Sun Solaris 10

Sl.No.	Programming Language
1	C, C++
2	C#
3	JAVA
4	SQL, PL/SQL
5	R

Sl.No.	Applications / Tools
1	SQL Server
2	Microsoft Visual Studio 2005
3	Microsoft Office 2007, 2010
4	Microsoft Office Projects 2008
5	Oracle 9i
6	Matlab 2016, Xilinx 8i, 10i, 14i, Masm, Tasm
7	Tally ERP 9
8	Wordsworth English Software
9	scilab, Maxima, Mathematica
10	CAD, GARBER, Rech CAAD Photoshop, Corel draw software for Fashion and apparel designing,
11	Cadence
12	BLAST, FASTA, RASMOL, Modeller, Gromacs, Autodock

- **Number of nodes/ computers with Internet facility** - 625
- **Any other** - The institutional data is secured through Firewall applications such as Web Application Filter, Proxy Maintenance, Mail Server, Gateway antivirus Detector, Gateway Anti Spam Detector and Real time Bandwidth Management.



**4.3.2 Detail on the computer and internet facility made available to the faculty and students on the campus and off-campus?**

- ✚ Every student and employee has free access to computers and internet on campus.
- ✚ All Departments have computers and printers.
- ✚ The campus is enabled with Wi-Fi and LAN internet connectivity.
- ✚ Through CMS faculty, students and parents can access data related to attendance, student evaluation, class schedules, exam schedules learning material and other academic-related information.
- ✚ The digital library has remote access through valid logins and IP address

**4.3.3 What are the institutional plans and strategies for deploying and upgrading the IT infrastructure and associated facilities?**

The College plans to proliferate the quality of learning experience by upgrading its IT infrastructure and associated facilities to create a synergetic platform to progress towards a digital campus based on needs of the students, change in the syllabus or research activity.

The institution plans and strategies include:

- ✚ Fortification of Online admissions
- ✚ e-content development and standardization
- ✚ Develop e-Question bank
- ✚ e- Library networking and synergy
- ✚ Enhance cloud computing facility
- ✚ Develop e-governance
- ✚ Strengthening video conferencing facility
- ✚ Setting up Video Library
- ✚ Increasing the number of ICT enabled classrooms
- ✚ Mobile app for Student attendance

**4.3.4 Provide details on the provision made in the annual budget for procurement, upgradation, deployment and maintenance of the computers and their accessories in the institution (Year wise for last four years)**

**Table 96: Yearwise IT accounts**

Sl.No.	Year	Amount Spent
1	2011	5,63,499
2	2012	4,38,480
3	2013	4,11,605
4	2014	3,01,727
5	2015	8,65,309
6	2016	3,95,725

**4.3.5 How does the institution facilitate extensive use of ICT resources including development and use of computer-aided teaching/ learning materials by its staff and students?**

The Institution has adequate number of computers and peripherals for both the students and the faculty that facilitates the extensive use of ICT and computer-aided teaching/learning materials through the following:

- ✚ Lecture through power point and multimedia presentation.
- ✚ Lesson plans, seminars, assignments and notes are e-mailed to the students by creation of Google groups as well as it can be accessed through CMS.
- ✚ Students are encouraged to prepare assignments, reports and dissertations by accessing the information from the internet.
- ✚ Wi-Fi access throughout the campus.
- ✚ Training Programs on ICT are conducted frequently.
- ✚ Access to Digital Library.
- ✚ Plug and play facilities in gallery rooms and seminar halls.
- ✚ Campus management system is in place.

**4.3.6 Elaborate giving suitable examples on how the learning activities and technologies deployed (access to on-line teaching - learning resources, independent learning, ICT enabled classrooms/learning spaces etc.) by the institution place the student at the centre of teaching-learning process and render the role of a facilitator for the teacher.**

The ICT enabled class-rooms of the College have made teaching and learning a two-way process, facilitating greater interactive sessions. Teaching and learning have become more qualitative and effective through the use of extensive resources and infrastructure available. The technologies used in modernizing the teaching-learning method have resulted in the following trends:

- ✚ Students and teachers are able to access the resources available online, fulfilling the requirements of their curriculum
- ✚ A majority of teachers use multimedia presentations, and specially designed computer-aided course materials.
- ✚ Team work and knowledge sharing is enhanced.
- ✚ Broadband and instant messaging channels such as WhatsApp and email play a central role in fostering teachers communication and increasing collaboration.
- ✚ Students learn new skills: analytical, communication skills, writing skills, spelling, grammar, punctuation, editing and re-drafting.
- ✚ Computer assisted teaching exposes students to subject-centric practical applications like those related to bio-informatics, DNA and protein sequences and analysis, algebra and matrices, chemical structures, computational physics, gene sequences, electronic circuit simulations, applied statistics and vital statistics among many others.
- ✚ Students get exposure to subject related real-life problems and learn to derive solutions to these problems in real-time.
- ✚ Students learn to use 3D modeling and computer simulation to test or verify models/theories.
- ✚ Students utilize these resources to prepare their study material.
- ✚ Access to e-library has helped the students in their various research activities.

**4.3.7 Does the Institution avail of the National Knowledge Network connectivity directly or through the affiliating University? If so, what are the services availed of?**

The Institution is availing the facility through the affiliating University. The Bangalore University avails NKN Internet connectivity with 1 GB bandwidth with state-of-the-art data centre. e-resources are used by our students.

**4.4 Maintenance of Campus Facilities**

**4.4.1 How does the institution ensure optimal allocation and utilization of the available financial resources for maintenance and upkeep of the following facilities (substantiate your statements by providing details of budget allocated during last four years)?**

**a. Building b. Furniture c. Equipment d. Computers e. Vehicles f. Any other**

The Maintenance and up keeping the facilities is priority for the College. The management allocates the budget for maintenance and oversees the optimum utilisation of the same.

**Table 97: Budget Utilized**

Purpose	2011-12	2012-13	2013-14	2014-15	2015-16
	Amount ₹	Amount ₹	Amount ₹	Amount ₹	Amount ₹
Repair & maintenance	390694	204886	474187	42690	223542
Electrical/Power charges	940055	1081111	916263	1031668	1045252
Lab & consumables	928604	1110393	1089324	1605990	1574991
Printing & stationary	499365	409210	564098	788532	534578
Office Maintenance	144191	1011909	134738	14328	38698
Travel & conveyance	37575	35302	38050	38915	110238
Sports expenses	69328	58162	66962	300	109257
Any Other	401207	572121	1893172	2448065	1201234

**4.4.2 What are the institutional mechanisms for maintenance and upkeep of the infrastructure, facilities and equipment of the College?**

The Institution has dedicated maintenance team which includes system administrator, electrician, plumber, carpenter, gardener and security guards, that is overseen by the maintenance manager. The team upkeeps the Infrastructure like, classrooms, laboratories and other facilities and improve the ambience of the campus in the following way;

- ✚ A team of skilled personnel carry-out the maintenance of the civil, plumbing, electrical, carpentry etc.
- ✚ The Institution has out-sourced the house keeping to keep cleanliness and hygiene.

- ✚ Computers, Genset, office software, pest-control etc. are under annual maintenance contract and regularly serviced.
- ✚ The ICT related instruments such as computers and networking services are taken care by the system administrator.
- ✚ Water filters are serviced periodically.
  
- ✚ Most of the equipments in the laboratory are under AMC. Other equipments are serviced and maintained by the suppliers every 6 months/annually depending on the requirement. The labs are maintained by the lab assistants & attenders.
- ✚ LCD & over head projectors are serviced regularly.
- ✚ Audio visual equipments are maintained by qualified technician.

#### **4.4.3 How and with what frequency does the institute take up calibration and other precision measures for the equipment/ instruments?**

The institute takes up calibration of the instruments/equipment at the beginning of every semester. The laboratory instruments are maintained periodically by the lab assistant guided by the staff. The students are also trained to calibrate the glassware and instruments in the laboratory. Students are educated about the importance of precision measures in the laboratory. The laboratory equipments are calibrated and serviced by the authorised service providers before the end semester examination.

#### **4.4.4 What are the major steps taken for location, upkeep and maintenance of sensitive equipment (Voltage fluctuation, constant supply of water etc.)?**

The College ensures the safety of student & staff by taking appropriate measures wherever necessary in the following ways:

- ✚ Equipments & Instruments are placed in an appropriate location such that it does not cause any threat to the staff and students. Eg: Deep freezers are placed near window for proper air circulation; Exhaust fans are installed wherever necessary; Servers are maintained in AC room etc.
- ✚ Fire systems have been installed at the prime locations e.g. near the lift, laboratories, library and corridors in every floor of the building.
- ✚ The building has CCTV cameras installed at strategic locations such as entrance, parking and library. The library has electronic remote sensing security system at entrance of the library.
- ✚ A generator with the capacity of 250 KV has been installed for continuous uninterrupted supply of power in the College campus.
- ✚ UPS is installed to support the sensitive equipments/instruments and computers
- ✚ The campus has an underground water source and storage tanks, for the constant supply of water that are cleaned periodically. The potable water is provided through water coolers / purifiers, that are ensured safe by our in-house Microbiologists and are serviced periodically.
- ✚ The non-technical personnel like masons, carpenters and painters are employed specially to carry out the repair and maintenance.

**Any other relevant information regarding Infrastructure and learning resources which the College would like to include:**

Keeping abreast with the ever-changing educational ecosystem, our constant endeavor has been to design, provide spaces and create conducive platform to meet the demands of all the stakeholders. Some of the perspective plans include:

**Learning Resource**

- Smartclassroom expansion
- Activity centre
- Provide self study platform

**Infrastructure:**

- Improved Wi-Fi connectivity
- Tuck shop in the College premises
- Incubation centre in the campus
- Automated campus
- Hostel facility in the vicinity

## CRITERION V: STUDENT SUPPORT AND PROGRESSION

### 5.1 Student Mentoring and Support

#### 5.1.1 Does the institution publish its updated prospectus/handbook annually? If 'yes', what is the information provided to students through these documents and how does the institution ensure its commitment and accountability?

The College publishes an informative prospectus for every academic year and updates website every semester. The prospectus provides the following information.

- + Profile of the College
- + Vision and mission statement of the institution
- + Chairman's Message
- + Basic institutional information and unique features of the institution
- + Programs offered, eligibility criteria, admission process and scope of the program
- + General rules and regulations
- + Student Welfare Office services
- + Placement cell information
- + Facilities available in the College
- + Hostel facilities for boys and girls

The website provides comprehensive information about the College such as courses and scope of program, Department and faculty profile, student activities, co-curricular and extra-curricular activities, University ordinances and notifications, announcements etc.

The fresh batch of students are issued an Almanac CD which contains Vision and Mission statement, Chairman's message, Principal's message, Staff profile, Academic calendar, General rules and regulations, Disciplinary requirements, Syllabus of the entire course, Lesson plan, Time Table and Details of orientation program.

**Commitment and accountability of the institution:** The commitment of the institution is ensured by

- + Completing the syllabus within stipulated time frame
- + Encouraging students to take activities like home assignments, seminars, presentations; group discussion, projects, study tour and field work
- + Monitoring attendance as per University norms
- + Providing ICT facilities, state-of-the-art-library with e-journals, computers with internet access
- + Providing skill development and certificate courses
- + Providing scholarship to economically poor students
- + Providing holistic student support and conducive environment for teaching and learning
- + Providing training and opportunity for employability

#### 5.1.2 Specify the type, number and amount of institutional scholarships / freeships given to the students during the last four years and whether the financial aid was available and disbursed on time

Under the rule 37 of The Oxford Colleges Administration and Service Manual 2007, an

In addition to the financial assistance provided by the Government, The Oxford College has separate fund available for providing financial assistance to the students.

Endowment Fund called “The Oxford Endowment Fund” has been constituted. The interest accrued on the deposit of the said fund shall be spent for the award of Scholarships, Medals or Prizes to the students securing highest marks in subjects in the 1<sup>st</sup> attempt in the University Examinations. In addition to this, the following fee concessions and scholarships have been announced for the students

✚ 50% concession in 2nd year and 100% in the 3<sup>rd</sup> year on the tuition fee to the toppers in each of the

degree courses.

✚ Free sponsorship in PG courses to first ten Rank Holders in the University Examinations

**Table 98 a: Endowment Fund Scholarship Details**

YEAR	UG		PG		TOTAL AMOUNT
	NO OF STUDENTS	AMOUNT	NO OF STUDENTS	AMOUNT	
2011	13	3900	09	2700	6600
2012	12	3600	10	3000	6600
2013	11	3300	08	4000	7300
2014	09	2700	08	4000	6700
2015	08	4000	09	4500	8500
2016	11	5500	17	8500	14000

Year	Course		No of students	Amount	Total amount
2012	BCA	II YEAR	1	25000	1,50,000.
		III YEAR	1	50000	
	B.Sc.	II YEAR	1	12500	
		III YEAR	1	25000	
	B.Sc. FAD	II YEAR	1	12500	
		III YEAR	1	25000	
2013	BCA	II YEAR	1	25000	1,50,000.
		III YEAR	1	50000	
	B.Sc.	II YEAR	1	12500	
		III YEAR	1	25000	
	B.Sc. FAD	II YEAR	1	12500	
		III YEAR	1	25000	
2014	BCA	II YEAR	1	25000	1,65,000.
		III YEAR	1	50000	
	B.Sc.	II YEAR	1	15000	
		III YEAR	1	30000	
		II YEAR	1	15000	

	B.Sc. FAD	III YEAR	1	30000	
2015	BCA	II YEAR	1	25000	1,70,000.
		III YEAR	1	50000	
	B.Sc.	II YEAR	1	15000	
		III YEAR	1	30000	
	B.Sc. FAD	II YEAR	1	20000	
III YEAR		1	30000		
2016	BCA	II YEAR	1	25000	1,80,000.
		III YEAR	1	50000	
	B.Sc.	II YEAR	1	15000	
		III YEAR	1	30000	
	B.Sc. FAD	II YEAR	1	20000	
III YEAR		1	40000		

Year	Endowment Scholarship amount	Fee concession Scholarship amount	Total amount
2011	6600	-	6600
2012	6600	150000	156600
2013	7300	150000	157300
2014	6700	165000	171700
2015	8500	170000	178500
2016	14000	180000	194000

**Sports scholarship**

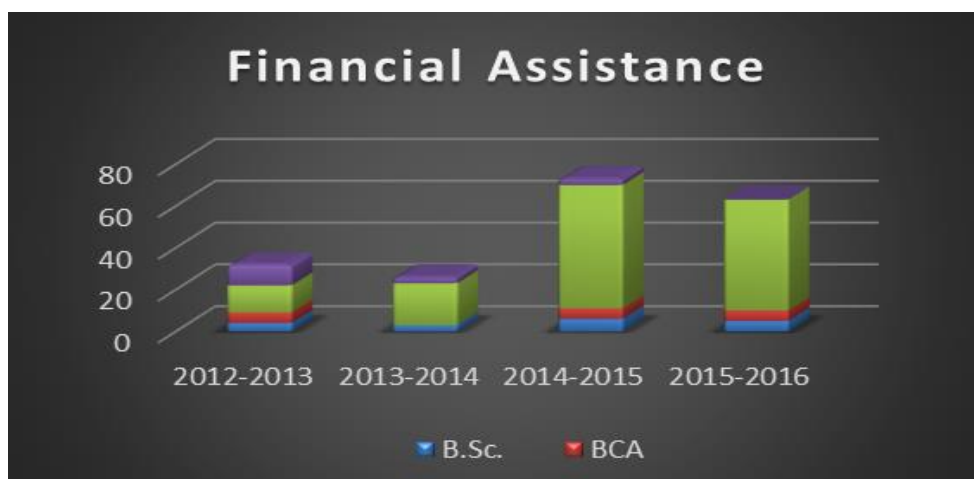
Year	UG		PG		Total amount
	No of students	Amount	No of students	Amount	
2011	-	-	-	-	-
2012	-	-	-	-	-
2013	-	-	1	25000	25000
2014	-	-	-	-	-
2015	-	-	1	5000	5000
2016	1	20000	-	-	20000

The financial aid was disbursed on time.

**5.1.3 What percentage of students receives financial assistance from state government, central government and other national agencies?**

**Table 98 b: Financial assistance to Science Students from Various agencies**





Year		% of students getting financial assistance								
Year		Post Matric Scholarship							West-Bengal Minority Development Finance Corp.	Social Welfare Development
Course/Combination		S C	S T	Minority	2A	2B	3A	3B		
2012-2013	B.Sc.	1	-	3	-	-	-	-	-	-
	BCA	4	-	1	-	-	-	-	-	-
	M.Sc.	1	-	9	-	-	-	-	1	2
	MCA	1	-	9	-	-	-	-	-	-
2013-2014	B.Sc.	1	2	-	-	-	-	-	-	-
	BCA	-	-	-	-	-	-	-	-	-
	M.Sc.	14	-	-	2	1	3	-	-	-
	MCA	3	-	-	-	-	-	-	-	-
2014-2015	B.Sc.	5	1	-	-	-	-	-	-	-
	BCA	5	-	-	-	-	-	-	-	-
	M.Sc.	21	-	-	14	-	17	7	-	-
	MCA	3	-	-	-	-	-	-	-	-
2015-2016	B.Sc.	4	-	-	-	-	-	-	-	1
	BCA	5	-	-	-	-	-	-	-	-
	M.Sc.	16	-	-	8	-	26	3	-	-
	MCA	-	-	-	-	-	-	-	-	-

Year	Course/ Combination	Post Matric Scholarship							West-Bengal Minority Development Finance Corp.	Social Welfare Development
		SC	ST	Minority	2A	2B	3A	3B		
2012-2013	B.Sc.	7315	-	12761	-	-	-	-	-	-
	BCA	16760	-	6761	-	-	-	-	-	-
	M.Sc.	9625	-	30150	-	-	-	-	3000	73630
	MCA	38720	-	30150	-	-	-	-	-	-
2013-2014	B.Sc.	2045	11978	-	-	-	-	-	-	-
	BCA	-	-	-	-	-	-	-	-	-
	M.Sc.	340700	-	-	6700	10000	10050	-	-	-
	MCA	157440	-	-	-	-	-	-	-	-
2014-2015	B.Sc.	32761	6120	-	-	-	-	-	-	-
	BCA	40759	-	-	-	-	-	-	-	-
	M.Sc.	656240	-	-	146390	-	166352	61210	-	-
	MCA	167612	-	-	-	-	-	-	-	-
2015-2016	B.Sc.	26444	-	-	-	-	-	-	-	7699
	BCA	88880	-	-	-	-	-	-	-	-
	M.Sc.	473170	-	-	63550	-	211900	21300	-	-
	MCA	-	-	-	-	-	-	-	-	-

In addition to this student have also received scholarships from Defence, North-east units, Bengaluru dairy and some Minority organisations.

#### 5.1.4 What are the specific support services/facilities available for Students from SC/ST, OBC and economically weaker sections

- ✚ Equal Opportunity Cell has been constituted to address all concerns of SC/ST, OBC and other weaker sections. The prime objective is to ensure timely help to the students in need.
- ✚ A separate SC/ST book bank has been constituted in the library so that the weaker section is benefited throughout the year
- ✚ The College encourages to apply for scholarships to the students from SC/ST/OBC and economically weaker sections.
- ✚ Relaxation in cut off percentage is given to SC/ST/OBC students during the time of the admissions
- ✚ The College also arranges remedial classes for the students belonging to SC/ST/OBC and economically weaker sections on the need basis

#### Students with physical disabilities

There are very few students with physical disabilities. The College has been constructed to cater to the needs of the differently abled students.

- ✚ Special seating arrangement if required.
- ✚ Extra time is spared by the faculty for guiding them according to their needs as framed by the authorities.
- ✚ Services of scribes are provided to visually challenge in the examination.
- ✚ Lift operators are provided in the lift, preference is given in hostel.
- ✚ Appropriate health care facilities are provided free of cost.

The College in association with Samarthanam in HSR layout Bengaluru, an NGO for blinds has developed a digital library for blind students.

**Overseas students** - The international student welfare committee ensures the well-being of overseas students. Providing adequate hostel accommodation counselling services, attending to their acquaintance problems, administrative support for their visa renewal, medical care and any other services required by the students are some of the support facilities available for overseas students. They are given special induction program which educates them about Indian culture, rules and regulations of Bengaluru city.

**Students to participate in various competitions/National and International** - The cultural coordinator and student welfare officer of Oxford College of Science provide free transportation and financial assistance for registration and costumes for students participating in co-curricular and extra-curricular activities.

The University practical examination was rescheduled to the students representing College at national or international level sports.

Fee concession is provided for Sports Champions. Alternate attendance is also provided for participants. Coaching from professional artists and choreographers is arranged. A seminar hall is available for rehearsing.

**Medical assistance to students: health centre, health insurance etc.**

The College has a health centre with a doctor visiting the campus. However, the doctor also visits on emergency calls. Medical check-up for both student and staff is conducted annually. All The Oxford Educational Institution's Students and staff are given special services at The Oxford Medical College, The Oxford College of Physiotherapy and The Oxford Dental College.

**Organizing coaching classes for competitive exams** - Faculty members assist students in preparation for competitive examinations. Interactive sessions with dozens of different industries/civil services are organized for student motivation. In the academic year 2015-2016, the College has started CSIR coaching for post graduate life science students. The College has collaborated with Biotechnika and has initiated an add-on program for UGC-CSIR coaching

**Skill development (spoken English, computer literacy, etc.)** -A number of workshops and seminars, Several Pre-Placement talks/personality & skill development workshops are conducted on a regular basis to enhance communication skills and personality development of the students. The College has an English lab with WORDSWORTH software which trains students on communicative English. In the timetable, one period a week has been allotted for English lab. Under CCE- Computer literacy and E-library have been taught by specialised faculty members.

**Support for “slow learners”** - Slow learners are identified in the initial interactions in the classes and their performance in previous examinations and internal tests.

- ✚ Slow learners are taken care of through remedial classes and tutorials and special attention to students beyond learning.
- ✚ Special attention is given to “slow learners” by the faculty during both theory and practical classes.
- ✚ Personal, academic and socio-psychological counselling is provided by the Counsellor on call specially appointed by the College for the same. However, the confidentiality about the issues are maintained.

**Exposures of students to other institution of higher learning/ corporate/business house etc.**

The College has various MOU's with reputed companies and institutions to get exposures with industries and carry out their internship. Education and industrial trips are organised on regular basis. Workshops and seminars in collaboration with national institutes and industries are organised on regular basis.

The students avail the library facility of Bangalore University, University of Agricultural Sciences (GKVK) and other Central Institutes like IISc, NCBS, IIM-B, IIHR etc for their projects.

**Publication of student magazines:** Please Refer Annexure 5.3.4

**5.1.5 Describe the efforts made by the institution to facilitate entrepreneurial skills, among the students and the impact of the efforts.**

The College has an active Entrepreneurship Development Cell that conducts workshops, seminars etc. to foster entrepreneurial culture. In addition, the College has applied for incubation center under Karnataka Govt and GoI.

The prespective plan of College includes setting up incubation center and fund active start-ups. The College has applied for Incubation center to Govt. of Karnataka and GoI.

The College conducts programs in the form of guest lectures, seminars/workshops that provide exposure to business opportunities. In addition, the projects that the students take up, provide the required momentum to identify the fields suitable for starting business ventures.

The national symposiums are also conducted to create awareness program on career prospectus and business opportunities in Food processing.

Over the years, some of our students have started their own ventures like mushroom cultivation, Fermentation technology, diagnostic centres, biofertilizer, IT start-ups etc. The

idea of start-ups is not only limited to app development and also selling the same to bigger conglomerates.

**5.1.6 Enumerate the policies and strategies of the institution which promote participation of students in extracurricular and co-curricular activities such as sports, games, Quiz competitions, debate and discussions, cultural activities etc.**

- additional academic support, flexibility in examinations
- special dietary requirements, sports uniform and materials
- any other:

The following policies are adopted by the College to promote extracurricular activities

- ✚ Organizing inter collegiate and inter Departmental sports meet such as basketball, volley ball, throw ball. During the odd semesters, a cultural fest OXFO IGNITE-an Inter- collegiate fest is conducted every year. Various inter-class, inter-Departmental and intra collegiate activities are also held. To name a few, Campus Day, Micromania, Youth Day, National Science Day, Pi Day, Genesis, Transient, etc
- ✚ Equipment for the various games are also provided by College
- ✚ The College arranges food for all students during coaching, practice and participation
- ✚ The College pays the registration fee for all the competitions
- ✚ Transportation facility for all inter collegiate competition is provided
- ✚ Relaxation in the attendance for sports persons. Special remedial classes are organized. Alternate attendance is provided for attending sports events
- ✚ Separate internal test schedule for sport participants
- ✚ There are several student clubs constituted in the College.

It is mandatory for all the students of UG students to opt for Co-curricular activities as a part of curriculum under CBCS Scheme.

For the academic year 2016-2017, the College has offered following co-curricular activities such as Embroidery, Fitness, Gardening, Community work, Personality development, English lab, Kannada Kali, Yoga, NSS, Library management, Tie and Dye, Sports facilities, Literary association in Hindi, Kannada and English etc.

During the NSS Camp, the College with the aid of University provides accommodation, well balanced nutritious food, and conducive environment to do social work.

**5.1.7 Enumerating on the support and guidance provided to the students in preparing for the competitive exams, give details on the number of students appeared and qualified in various competitive exams such as UGC-CSIR- NET, UGC-NET, SLET, ATE / CAT / GRE / TOFEL / GMAT / Central /State services, Defence, Civil Services, etc.**

The institution has taken special initiatives to support and guide the students for UGC-CSIR-NET examination. The College has collaborated with Biotechnika and has initiated an add-on program for UGC-CSIR coaching. The College also conducted a one-week

career guidance program by 7th Sense which had an intense coaching to clear aptitude test of various state services and civil services examination.

An online platform to practice aptitude tests is made available to the students.

Psychometric analysis is conducted for the students. Students are always encouraged to discuss their plans related to higher studies including research and their choice of career.

**5.1.8 What type of counselling services are made available to the students (academic, personal, career, psycho-social etc.)**

A well-structured counselling system is in place for overseas students, students from outside state and same state.

The College accords high priority to the counseling process, given the fact that nearly 70% students come from outside Karnataka, several are first generation learners and the full range of diversity exists within the College community,

***Personal Counseling:***

Problems of relocation, sudden independence, social activity, technology mediated social networks, peer pressure, and intense competitions pose several challenges to the individual. Counseling is used to provide timely help to students having emotional, behavioral, academic, social or other adjustment concerns.

***Academic Counseling:***

- ✚ Parent Relations Officer helps the students to choose the right course
- ✚ For second and third year students, Departments often organize orientation programs and road shows to enable well informed choice
- ✚ Subsequently, students fill well-designed survey forms on basis of which they are allocated optional courses

***Career and Education Advancement Guidance:***

- ✚ Faculty encourage students to discuss their career plans, higher study including research and available option of entrance tests

***Psycho-Social Counseling and Guidance Unit:***

- ✚ The objective of this cell is to provide help to make the young students confident to handle any situation and provide a meaningful holistic College experience.

**5.1.9 Does the institution have a structured mechanism for career guidance and placement of its students? If ‘yes’, detail on the services provided to help students identify job opportunities and prepare themselves for interview and the percentage of students selected during campus interviews by different employers (list the employers and the programs).**

The Oxford College has a dedicated Dean - HR and Placement and a full-time placement officer who is in-charge of the placement services. The cell organises

One of the stated objectives of The Oxford College is to equip students with a variety of skills suitable for employment and for building a stronger task force. Various activities are undertaken to facilitate this objective of movement of students to higher education or employment.

various collaborative activities, and seminars to increase awareness about future career opportunities. Workshops on skill development, resume writing, Group discussion, grooming on personal interview are conducted every semester. Carrer guidande and placement activities is attached as annexure 5.1.9 (a)

**Pre-placement activities**  
**7<sup>th</sup> Sense Talent training**

The details of training conducted by Training and Placement cell at The Oxford College of Science for M. Sc second year and BTFS students are furnished in the below table.

**Table 99: Topics covered during the placement training program**

Directions	Coding & Decoding	Number Series	Probability	Soft skills	Presentation Skills	Idioms and Phrases
Ratio & Proportions	Time	Pipes & Cisterns	Odd Man Out	Verbal Ability	Fill in the blanks	
Blood Relations	Speed & Distance	Letter Series	Partnership	Public Speaking One word Substitutes	Interviews	

The students were exposed to industry standards, expectations and examples stated by the trainers. Company specific questions and shortcuts to solve were discussed in length.

In the academic year, 2015-2016. 30 many companies have visited our campus for recruitment and 182 students were selected. The details of which is added as annexure 5.1.9 b.

Internship.It provides forum for companies, institutions and students to interact and work together. A majority of the post graduate programs have provisions of internship from two months to six months.

**5.1.10 Does the institution have a student grievance redressal cell? If yes, list (if any) the grievances reported and redressed during the last four years.**

A dedicated grievance redressal cell is in place. Suggestion box is placed outside Principal's cabin and in the website. Grievances are discussed, appropriate action is taken and then redressed by the principal.

Grievance	Measure Taken
Drinking Water	Water Filter has been installed in all the floors.

University result issues	University Co-ordinator has been appointed and the Principal has been meeting Vice Chancellor and Registrar Evaluation after every result.
Washroom cleanliness	Full time house-keeping facility and maintenance manager is appointed.
Change of combination	The students were counselled and after understanding their calibre towards the course, their combination was changed.

### 5.1.11 What are the institutional provisions for resolving issues pertaining to sexual harassment?

In exercise of the powers conferred by UGC and Bangalore University, sexual harassment is a violation of “Fundamental Rights” under articles 14, 15 and 21 of the Constitution of India regulations. An Anti-Sexual Harassment Committee consisting of the following is constituted at The Oxford College of Science for preventing, curbing and combating any incident of Sexual Harassment in the College.

**Table 100: Members of Anti-Sexual Harassment committee**

Sl. No.	Name and Designation	Status in the Committee	Contact No. & E-mail
01	Dr. R. Kavyashree Principal	Chairman	080 – 30266302 scienceprincipal@theoxford.edu
02	Dr.Prakash Faculty, Department of Biochemistry	Member-Secretary	080 – 30266306 <a href="mailto:pattangep@gmail.com">pattangep@gmail.com</a>
03	Mrs.Vinita Thapaskar Faculty, Department of Computer Science	Member	080 – 30266325 <a href="mailto:vinita.tapaskar@gmail.com">vinita.tapaskar@gmail.com</a>
04	Ms.Ramya H.R. Faculty, Department of Electronics	Member	080 – 30266309 <a href="mailto:Ramya_hr7@yahoo.co.in">Ramya_hr7@yahoo.co.in</a>

Further an Anti-Sexual Harassment Squad is constituted consisting of the following members to remain alert and active throughout to ensure that not a single incident of Sexual Harassment creeps in the College. The Squad shall always initiate precautionary measures in visiting all the premises of the College to avert occurrence of any Sexual Harassment in any form or shape. It shall submit a report to the Anti-Sexual Harassment Committee about the occurrence

**Table 101: Members of Anti Sexual Harassment Squad**

Sl. No.	Name and Designation	Status in the Committee	Contact No. & E-mail
01	Dr.Prakash	Member-Secretary	080 – 30266306 <a href="mailto:pattangep@gmail.com">pattangep@gmail.com</a>
02	Mrs.VinitaThapaskar	Member	080 – 30266325



			<a href="mailto:vinita.tapaskar@gmail.com">vinita.tapaskar@gmail.com</a>
03	Ms.Ramya H.R	Member	080 – 30266309 <a href="mailto:ramya_hr7@yahoo.co.in">ramya_hr7@yahoo.co.in</a>

**5.1.12 Is there an anti-ragging committee? How many instances (if any) have been reported during the last four years and what action has been taken on these?**

Yes, the College has an anti-ragging committee. Contact details of the committee members are extended to the students during the orientation program for the freshers. Senior students are educated about various punishments they have to face if they are indulging in ragging. These punishments are displayed in every alternative floors. In exercise of the powers conferred by UGC.

**Table 102: Members of Anti Ragging committee**

Sl. No.	Name	Designation	Profession	Address	Associated with	e-mail Id
1	Dr.R.Kavyashree	Chairman	Principal	Science College	Biotechnology	scienceprincipal@theoxford.edu
2	Dr.Sushil Kumar Sahu	Member	Professor	Dept. Of Computer Science & Application	Computer Science	hodcsa@theoxford.edu
3	Dr. Shivaji	Member	Associate Professor	Dept. of Biotechnology	Biotechnology	shivajibio@gmail.com
4	Mr.Bhanu Prakash	Member	Assistant Professor	Dept Of Biochemistry	Biochemistry	bhanu.cng@gmail.com

**5.1.13 Enumerate the welfare schemes made available to students by the institution.**

The following welfare schemes are available to students of the College.

- ✚ Fee concession for Economically Weaker Section(EWS) students.
- ✚ Bus and railway travel concession
- ✚ Financial assistance to the students participating in various state and national competitions.

- ✚ Free access to the state-of-art campus in-door sports facility
- ✚ Availability of in-house facility of photo copy machine
- ✚ Free transportation for industrial visit
- ✚ Free transport for hostel students
- ✚ Subsidized canteen facility
- ✚ English lab to enhance communication
- ✚ Medical assistance from The Oxford Medical College and Dental College.
- ✚ SC/ST book bank
- ✚ Spacious parking for students' vehicles.
- ✚ Free Counselling Centre and service of professional counsellors to help the students under stress and anxiety.
- ✚ Purified drinking water facility available at different places of the campus.
- ✚ Various associations to foster the integral growth of students along with academic progress.
- ✚ Endowments and Awards are instituted by the Management

**5.1.14 Does the institution have a registered Alumni Association? If 'yes', what are its activities and major contributions for institutional, academic and infrastructure development?**

Yes, in view of large number of students passing out of the College, it is considered important to enlist their services for the betterment of the activities of the College

- ✚ Feedback from alumni is encouraged
- ✚ Alumni were invited as judges for various events at Annual sports meet.
- ✚ Cricket match was organized between Alumni and faculty members.
- ✚ Alumni were involved in choreography of Fashion show.
- ✚ Alumni were the chief guest of Valedictory Function of annual cultural event Oxfo-Ignite - 2015.
- ✚ Based on the inputs received from Alumni CSIR coaching classes was introduced.
- ✚ Every year Alumni reunion is conducted
- ✚ Alumni is a part of IQAC

**5.2 Student Progression**

**5.2.1 Provide the percentage of students progressing to higher education or employment (for the last four batches) highlight the trends observed.**

**Table 103: Student progression to higher education**

Year	Student progression UG to PG %
2012-2013	80.27
2013-2014	57.33
2014-2015	45.85
2015-2016	30.73
2016-2017	31.12

The average behavior trend shows that there is approximately equal percentage of students going to higher education and employment, though employment is actually little large. The total tracking of students at graduation reveals that small percentage of girl students have dropped out of studies and employment having preferred to stay as house wives after marriage. Nearly about 15% of the outgoing students have taken employment after the graduation but not through the campus recruitments

**5.2.2 Provide details of the program wise pass percentage and completion rate for the last four years (cohort wise/batch wise as stipulated by the University)? Furnish program-wise details in comparison with that of the previous performance of the same institution and that of the Colleges of the affiliating University within the city/district.**

**Table 104: Program wise pass percentage**

Course/Combination		Pass %				
		2012	2013	2014	2015	2016
UG	B.Sc.	66.66	60.67	52.68	58.16	56.30
	BCA	76.31	35.93	54.68	59.80	59.13
PG	Micro-Biology	97.50	96.96	100	93.02	97.77
	Bio-Technology	95.65	96.66	100	80	100
	Bio-Chemistry	62.50	33.33	76.19	48.78	58.33
	Applied Genetics	93.75	100	100	100	100
	Chemistry	6.66	23.07	5.88	6.66	38.09
	Computer Science	100	88.88	85	85	76.47
	Electronics	50	64.28	58.82	52.63	52.94
	Mathematics	73.68	41.66	51.85	60	75
	Statistics	42.85	16.66	37.5	0	100
	MCA	100	100	100	100	100
	Physics	-	-	-	-	33.33
	M.A (English)	-	-	-	100	100
PG Diploma	BTFS	100	100	100	100	100

**Table 105: Comparison of results with other Colleges**

Year	Course	Pass percentage		
		The Oxford College of Science	Vijaya College	Indian Academy College
2013	B.Sc.	60.67	70.85	52
	BCA	35.93	82.84	69
2014	B.Sc.	52.68	64.41	-
	BCA	54.68	79.82	-

(Courtesy Vijaya College SSR, Indian Academy College SSR)

**Table 106: Cohort wise pass percentage**

B.Sc.	2010-2013	2011-2014	2012-2015	2013-2016
SC	50	83.33	42.85	40
ST	66.66	33.33	33.33	33.33
OBC	100	50	100	65.38
WOMEN	73.33	78.43	57.64	62.66
GM	57.31	43.68	42.74	36.97

BCA	2010-2013	2011-2014	2012-2015	2013-2016
SC	100	60	85.71	28.57
ST	0	-	-	0
OBC	0	50	66.66	37.50
WOMEN	80	64.70	73.07	83.33
GM	37.50	40.25	49.51	50.66
M.Sc.	2010-2012	2011-2013	2012-2014	2013-2015
SC	69.23	66.66	85.71	46.15
ST	33.33	100	66.66	50.00
OBC	75.00	100	100	45.23
WOMEN	85.50	75.00	79.83	72.80
GM	83.00	72.78	75.51	67.97

MCA	2010-2013	2011-2014	2012-2015	2013-2016
SC	100	100	100	-
ST	100	100	100	-
OBC	100	100	100	100
WOMEN	100	100	100	100
GM	100	100	100	100

M.A	2010-2013	2011-2014	2013-2015	2014-2016
WOMEN	-	-	100	100
GM	-	-	100	100

**5.2.3 How does the institution facilitate student progression to higher level of education and/or towards employment?**

- ✚ The College has a Career Guidance Cell which provides student guidance as well as placement opportunities through campus placements. Various activities like seminars, workshops and skill development courses, aptitude test, group discussion, mock interviews, career counseling and CV preparation are organized by the cell.

- ✚ The institution provides an online entry to service platform for the students to practice sample aptitude tests.
- ✚ Students are constantly encouraged and motivated to participate in in-house research projects, funded projects like DST, KBITS, UGC and VGST and internship.
- ✚ The College has significant number of clubs and societies, each of which bring together students of different discipline and organize various events that facilitate in making students to think, analyze and plan beyond the syllabus.
- ✚ Induction and orientation for the new students are conducted and various placement opportunities are explained in details.

Industrialists, corporates and alumni are invited for interaction. Meet Alumni and Meet Excellence provides a platform for the student alumni interaction.

#### **5.2.4 Enumerate the special support provided to students who are at risk of failure and drop out**

Remedial classes and bridge courses support the slow learners to perform better and help in decreasing the risk of failure and drop out. Additionally, the College focuses on building soft-skills to improve comprehension and communication through English lab. Special sessions on “how to improve memory” was conducted for effective retention of knowledge.

Students at the risk of drop out are identified and additional personalized counselling is provided to minimize the risk. The College has negligible drop out.

Sometimes students need personalized counseling to overcome home sickness, domestic issues, financial issues, fear of failure, etc., the counseling committee effectively deals with such students and ensures that there is minimum drop out from the courses. College has relatively low dropouts or failures. There are rare occasions when the students discontinue on account of employment.

### **5.3 Student Participation and Activities**

#### **5.3.1 List the range of sports, games, cultural and other extracurricular activities available to students. Provide details of participation and program calendar.**

The Oxford College of Science perceives sports as a means of empowering young men and women. It has continuously endeavored to enhance and upgrade its sports facilities. As a constituent campus College, the College has access to University sports facilities. These include the Foot Ball, Cricket, Basket Ball and Athletic events. The College also has free access to well known sports stadium of the city, The Kanteerava Stadium for athletic events. The College organizes the Annual Sports Festival every year. The Annual Sports Award Ceremony is a major event for which well known sports personalities are invited as role models. The College also has following indoor and outdoor sports activities

- ✚ Indoor games: Table tennis, Carom, Chess

✚ Outdoor games: Throw ball, Volleyball, Basket ball, Fitness program, Aerobics, Zumba, Yoga

**Cultural and Extracurricular Activities:** The College organizes a wide range of extra curricular activities. To name a few: photography, cooking without fire, brain twister, pencil sketching, flower arrangement, hair styling, crossword, face painting, painting, dance, documentary, singing etc.

**5.3.2 Furnish the details of major student achievements in co-curricular, extracurricular and cultural activities at different levels: University / State / Zonal / National / International, etc. for the previous four years.**

The Oxford College of Science students has numerous prizes in co-curricular, extracurricular and cultural activities.

List of inter-collegiate competition winners in various events are added as annexure 5.3.2. The Oxford College of Science students excel in almost all disciplines of sports. Their performance was outstanding in academic years 2013-14, 2014-15. 2015-16. List of sports achievements are also added as annexure 5.3.2.

**5.3.3 How does the College seek and use data and feedback from its graduates and employers, to improve the performance and quality of the institutional provisions?**

The institution has an effective mechanism for obtaining feedback from its graduates and employers. The companies visiting for campus recruitment provide feedback on students. We seek feedback from alumni and parents too. An online feedback system is in place for providing feedback. The results are automatically analyzed and

- ✚ The suggestions given by the employers for improving student's performance is considered.
- ✚ Students exit report paves way for development activities. The feedback thus collected from different stakeholders is analyzed and positively used for the improvement of the institutional provisions.

**5.3.4 How does the College involve and encourage students to publish materials like catalogues, wall magazines, College magazine, and other material? List the publications/ materials brought out by the students during the previous four academic sessions.**

College magazine 'Sanchalana' and Departmental Magazine//Newsletters like 'Biovistas' (Biotechnology), 'Jeevasparsha'(Microbiology) and Oxygem (Computer Science) provide an opportunity to learn/improve scientific writing and publish papers and articles of their in-house projects. The entire activity of collecting the articles, scientific puzzles, scientific cartoons, editing, designing the cover page, and publishing the magazine is accomplished by students with the guidance of the faculty. Students have also published review and

research articles in various journals. The following are the some of the magazines brought out by the students

**Table 107: College Magazine**

1.	College Magazine	Sanchalana
Department Magazines		
2.	Biotechnology	Biovistas
3.	Microbiology	Jeevasparsha
4.	Computer Science	Oxygem
5.	Electronic Science	Electro-Vahini
6.	Genetics & Zoology	Fauna
7.	Chemistry & Bio-Chemistry	Wall Magazine
8.	Mathematics	Ganithalokha
10.	Fashion & Apparel Design	Fashionista
11.	Physics	Q.(Q-Dot)

**5.3.5 Does the College have a Student Council or any similar body? Give details on its selection, constitution, activities and funding.**

The Oxford College of Science has the Student Council separately for UG and PG program. The Principal is the Chairperson. The Student welfare officer is the member secretary. The council is managed by President, Vice-President and members. The selection of the council members' procedure is as follows

- ✚ Each section selects two class representatives.
- ✚ From the set of class representatives, President, Vice-President, Treasurer, Cultural secretary, and sports secretary are elected. The cultural secretary and sports secretary are selected on the basis of active participation.

The members of the student council are elected for a period of one year. The council members are administered cath during Investiture Ceremony. The council members will conduct meetings and decide on various activities for the academic year. It is responsible for organising national festivals, College festivals and social functions like fresher's day, farewell etc. Student council is required to perform all necessary functions in connection with library, cafeteria, sanitation and general behaviour. For various activities, funding is done by the Management.

**5.3.6 Give details of various academic and administrative bodies that have student representatives on them.**

The following institutional bodies have student representatives in them.

- ✚ **Governing Council:** A UG and a PG student are nominated as members to provide suggestions on various academic and administrative activities.

- ✚ **Cultural Societies:** Each extra - curricular activity society has a student executive team to manage various activities.
- ✚ **Sports Committee:** Annual sports meet committee has student representatives who plan the annual sports in association Physical Education Director.
- ✚ **Library Advisory Committee:** Three students from various disciplines are nominated to provide valuable suggestion.
- ✚ **IQAC Committee:** IQAC committee has a student representative. In addition, students are also part of various committees such as Counseling and Mentorship, Grievance and Redressal cell under IQAC

### 5.3.7 How does the institution network and collaborate with the Alumni and former faculty of the Institution.

The College invites the former teachers as well as the members of Alumni Association on regular basis, for interaction. They are also members in the IQAC. Some Departments' alumni have created a whatsapp group through which they are all in constant touch with the College. In collaboration with alumni student's various events are conducted. Alumni rank holders are invited to interact and provide tips on preparation and achieving excellence in examination. Alumni also provide information about job openings. Former faculty render their service through special talks.

### Any other relevant information regarding Student Support and Progression which the College would like to include

Our best practices in student support and progression:

- ✚ Student-friendly atmosphere with splendid rapport between teacher and student.
- ✚ A campus free from ragging, secured campus with securities and CCTV surveillance
- ✚ Technologically enabled campus – campus automation, smart boards, and computers with latest configuration
- ✚ College website that is regularly updated

The stated objectives of The Oxford College includes to foster value based education through mentoring and exposing students to various modes of learning and to equip students to excel and contribute to the service of the Nation and to attain an optimum personal fulfillment by leading a value based life. Various support systems and infrastructure is in place to facilitate students achieve the same.

- ✚ Student counseling cell and student welfare committee for sensitive approach towards student problems.
- ✚ College assembly conducted by students twice a week
- ✚ A full-time placement service, in-house project, industrial project and internship, placement portal.
- ✚ Customized recommendation letters for students who seek admissions for higher education abroad and for students seeking jobs.
- ✚ Suitable scholarship schemes to support meritorious students
- ✚ Scouting for notification regarding internship, quiz, summer programs and circulating same in time
- ✚ Emphasis on holistic development.



Competition	1 <sup>st</sup>	2 <sup>nd</sup>	3 <sup>rd</sup>	Won Overall Championship
Vignan-2015 Vijaya College R.V. Road	3	1	3	
Theatrix 2015 Iscon Bangalore	0	0	0	
Jeevotsav- 2015, Christ University	0	7	0	✓
Chemoz 2015, Christ University	1	1	0	
Oxfo-Ignite 2015	2	2	0	
Culrav 2016 V.E.T. First Grade College	4	2	0	✓
Vibes 3600 Dream Zone	0	1	0	
Gardenia, Garden City College, Green Promise	0	0	1	
Mount Carmel College	0	0	0	
Srujana Fest The Oxford College Of Arts	1	1	1	
Pi-Day, The Oxford College Of Science	1	0	0	
Metro Fashion Show- 2012, Deccan Herald	0	0	1	
Chrysalis-2015 Army Institute Of Fashion And Design	1	0	0	
Metro Fashion Show-2015	0	1	0	
Go 2016 Gardeniya Olympia	0	1	0	
Scintillation- 2016, Jyothi Nivas College	0	0	1	
Yuvatanthra- 2016, The Oxford College Of Business Management	0	0	1	
Sports Day, The Oxford College Of Science	4	1	0	
Intercollegiate Athletic Meet- 2016 Bangalore University	0	1	1	

## CRITERION VI: Governance, Leadership and Management

### 6.1 Institutional Vision and Leadership

#### 6.1.1 State the Vision and Mission of the institution and enumerate on how the mission statement defines the institution's distinctive characteristics in terms of addressing the needs of the society, the students it seeks to serve, institutions traditions and value orientations, vision for the future, etc.?

**Vision:**

**To participate in the nation's march towards a knowledge society by nurturing intellectual growth and sound value systems in students through science education.**

**Mission:**

**Our mission is to realize the empowering and ennobling aims of education through scientific knowledge and research by providing an excellent learning environment with emphasis on values.**

The vision and mission statement of The Oxford College of Science draw upon the logo statement of the Children's Education Society "Vidya Sarvatra Shobhate" that envisions knowledge to one and all for a better future. Goddess Saraswathi, the repository of knowledge endorses imparting values, knowledge and skills for development of student's personality.

For instigating the vision and mission statement, The Oxford College of Science gives prominence to holistic development of students, creating conducive academic, intellectual research environment, investing in innovative cum effective teaching methodologies, establishing closer industry institution interface (3Is) cum community and stakeholder linkages. The College thrives hard to channelize the energy of students towards creativity, team spirit and service with dedication, devotion and discipline. Above all, Oxford firmly believes in imparting value based education going beyond mere employability. This ensures that graduating students are not only intellectually sound but also become socially responsible citizens.

The College enroll students from all socio-economic background irrespective of class, caste, creed and gender with different ranges of academic caliber. This enables the institution to cater to the needs of the economy, society and the country thereby contributing substantially to the development of the Nation. All these aspects i.e., the vision, mission and logo statement are in line with the Vision 2020 document of Higher Education released by the Karnataka State Council for Higher Education.

**The future vision of the College is to create high quality, employable and socially responsible citizens in the pursuit of achieving academic excellence and contributing to societal well-being.**

#### 6.1.2 What is the role of top Management, Principal and Faculty in design and implementation of its quality policy and plans?

The college is governed by the policies and plans framed by the Managing Committee (MC) of Children's Education Society® (CES). The management comprising of President, Vice-President, Secretary & Treasurer holds strategic review meetings annually. One of the key responsibilities of the MC is to ensure consistent application of quality standards across all



the 28 institutions managed by it. The Steering Committee comprising the Principals of all 28 institutions managed by CES carries out operational review meetings once in a year. The meetings are chaired by the President of CES who is the ex-officio Chairman of the Steering Committee.

The Principals make an exposition on issues faced, related constraints

and planned resolutions to ensure qualitative improvements. Penetrating discussions are held before any decisions are made. The operational policy decisions common to all the colleges are always taken in these meetings.

At the Oxford College of Science (TOCS) Strategy meet is organized before the start of every academic year wherein Principal, IQAC Coordinator and all the Deans (Academics, Administration, Research and Development, Human Resource and Placement, Examination) present review and short-term, long-term plans to formulate strategies for the next academic year. Feedback collected from the students, parents and other stakeholders is also considered. All the faculty members are also invited to contribute to the discussions. The strategies planned and proposed qualitative operational improvements evolved at the Strategy meet are placed before the Governing Council Members for discussion and approval. Once the approval is accorded it is the responsibility of the Principal to prepare and implement the detailed action plan. The management supports and sanctions funds for the same.

### 6.1.3 What is the involvement of leadership in ensuring

#### The policy statements and action plans for fulfillment of the stated mission

- ✚ Review Meetings are held once in a month between the Principal, Vice-Principals and the HODs wherein the action plan is discussed
- ✚ The Governing Council reviews the planned strategies and activities
- ✚ The Managing Committee of CES also reviews the progress at its meetings

#### Formulation of action plans for all operations and incorporation of the same into the institutional strategic plan

As indicated in 6.1.2 once the Governing Council approves the strategy and the recommended operational improvements detailed action plan is jointly prepared by the

Principal and Vice-Principals. This action plan is discussed with the HODs and finalized after obtaining their suggestions

**Interaction with stakeholders**

- ✚ The key stakeholders comprise Management, Faculty, Students, Parents, Non-teaching Staff, Administrative Staff and University
- ✚ Regular communication occurs by way of circulars and E-mail. Meetings are organized with all the faculty members on a need basis.
- ✚ Interaction with students occurs through circulars, electronic College management system, Assembly, student council meetings, orientation programs
- ✚ Parent Teachers Meeting is held once in a year and College has dedicated Parent Relation Officer to have regular interaction with the parents
- ✚ Meetings are held with non-teaching staff and administrative staff on a regular basis
- ✚ College has appointed a University Coordinator to correspond with the University on all official matter. The Principal and faculty meet University officials as and when necessary

**Proper support for policy and planning through need analysis, research inputs and consultations with the stakeholders**

The College has an established mechanism to seek views and feedback from various stakeholders. IQAC meetings are held regularly wherein the Student Council, Student Welfare officer and faculty members have free and frank discussions, which is re-laid back to the management. Dean - R & D provides both quantitative and qualitative inputs that are considered for planning purposes.

**Reinforcing the culture of excellence**

The quest for academic excellence flows from the mission statement of CES. The culture of excellence reinforced through participative planning process, strict reviews of action plan, performance appraisal for both teaching and non-teaching staff, faculty development programs, encouragement provided by the management for the research based activities, rewards and recognition policy, add-on programs for student enrichment and improvement. Regular feedback is obtained from all stakeholders and necessary action initiated. The roles and responsibilities of teaching and non-teaching staff are well defined, supplemented by standard procedures such as

- ✚ Teachers API is in place to assess the performance of the faculties
- ✚ Online 360-degree feedback and feedback from all stakeholders is taken by IQAC. The results are analyzed and communicated to the management

**Champion organizational change**

Management ensures organizational change as and when necessary to address changes in the internal or external environment. This can take several forms such as change in the organizational hierarchy, introduction of new positions, creation of new facilities, up gradation and updating of existing facilities and introduction of new academic/skill development courses.

**Table 108: Examples of organizational changes**

Year	Change
2011	Appointment of Research Director
2012	Introduction of Vice Principal's and Dean positions; Introduction of Research Assistant Post for BT Finishing School
2013	Introduction of Pupil Pod campus management system
2014	Introduction of Co-ordinator for Admission; Introduction of Career Guidance Cell
2015	Appointment of Parent Relation Officer, Introduction of online admission; Change in color of uniform blazer for students
2016	Introduction of International student welfare committee

**6.1.4 What are the procedures adopted by the institution to monitor and evaluate policies and plans of the institution for effective implementation and improvement from time to time?**

The College has various committees to monitor and implement policies and plans of the institution for effective implementation and improvement:

- ✚ The Principal, Vice-Principals and IQAC Coordinator constitute various committees at the commencement of academic year and monitor the overall progress of the committees and provide suggestions from time to time
- ✚ Dean (Academics) carries out Academic Audit every year and the same is reviewed during Strategy Meet.
- ✚ The Managing Committee of CES also reviews the progress at its meetings

**Improvements observed during last five years**

- ✚ Demand ratio is increased
- ✚ University ranks has improved
- ✚ Placement is improved
- ✚ Better pay scale from 2015
- ✚ Allocation of budget for research
- ✚ Four Departments have been recognized as research centers (Biotechnology, Microbiology, Biochemistry, Computer Science and applications)
- ✚ Approval of research projects from national and state level funding agencies for the faculties

**6.1.5 Give details of the academic leadership provided to the faculty by the top management.**

The Top management encourages academic leadership by following ways:

- ✚ The Dean Academics prepares the academic calendar that is distributed to all the HODs, faculty members and students. The academic audit is also carried out at the end of every academic year which is discussed during Strategy Meet.

- ✚ The Head of the Departments are allowed to distribute the workload among the faculty based on their subject expertise and preferences.
- ✚ The faculty prepare the lesson plan accordingly and implement the same.
- ✚ The faculty members assess the performance of the students based on their performance in internal exams, submission of assignments, presentation in seminars, participation in projects and other parameters viz., regularity, punctuality, timely submission and guide the students accordingly.
- ✚ Faculty is permitted to take up extension activities like NSS, NCC, etc. and plan for industrial visits.
- ✚ Faculty is designated as mentor for 15 to 20 students to look after the academic progress of the learners. They are empowered to call the parents to discuss about the academic progress of their ward.
- ✚ Faculty guides the students in inter-collegiate competitions viz., cultural, sports, fests, quiz, posters, and many more.
- ✚ Faculty is actively involved in various committees constituted under IQAC.
- ✚ The faculty development programs focused on development of specific leadership traits are organized every year.
- ✚ Faculty is encouraged to participate in external training programs, conferences, seminars, workshops so as to update and upskill themselves.
- ✚ Additionally, faculty is encouraged to conduct research-based activities, publish papers and books, organize conference, FDP's, workshops and collaborate actively with industry.

The management provides complete financial support for all the above.

#### **6.1.6 How does the College groom leadership at various levels?**

The College groom leadership at various levels – Faculty, administrative staff and students

**Faculty level:** The College has various committees under IQAC. The functioning of each committee is overseen by a Faculty Member.

- ✚ The key responsibility of the committee is to resolve issues and frame suitable guidelines for future use. Qualified, senior and experienced faculty members are given the role of Vice-Principal (Administration and Academics) and Deans who share the responsibility of Principal in the areas of Academics, Administration, HR & Placement, Research & Development and Examination. HODs run the Department in line with the policies framed in the Strategy meet and they contribute to the upliftment of the Department in various ways.
- ✚ Junior faculty members are given the role of a Coordinator who primarily assists the HOD in smooth functioning of the Department.
- ✚ Faculty members in the Department are given In-charge of various work pertaining to the Department Eg: Documentation – In-charge; Chemicals & Glassware – In-charge and so on.
- ✚ The College organizes various events viz., Oxfoignite, Alumni meet, Graduation day, Sports meet etc., in every academic year. Additionally, the College holds state/national level workshops, conferences, seminars and faculty development

programs. The overall responsibility for planning, organizing, co-ordinating and successful execution of these events/programs is given to individual Faculty members.

**Administrative staff level:**

- + With a well-defined hierarchy with roles and responsibilities the admin staff are mentored and given on-the-job training.
- + Training programs on soft skills are organized to improve their functional effectiveness.
- + Training programs are organized on
  - ✓ Usage of ICT (2012-2013).
  - ✓ Uploading information for University online portal for admission and examination management (2013-2014; 2014-2015)
  - ✓ Campus management system, (2015-2016)
  - ✓ Uploading information to Higher Education Council portal (2015-2016)
  - ✓ Organization behavior (2015-2016).
  - ✓ ERP usage (2016-2017)

**Student level:**

- + Representatives from student community are involved as student co-ordinator to assist the Faculty member in conducting all the events of the College
- + Several events such as Freshers day, Farewell, Ethnic day are organized by the students without any involvement from faculty
- + Students are permissible to form a council whose role to mediate between student community and College management
- + Class representatives are appointed from the student community who mediate between students and faculty
- + Students are encouraged to participate in NCC & NSS

**6.1.7 How does the College delegate authority and provide operational autonomy to the Departments / units of the institution and work towards decentralized governance system?**

The roles and responsibilities at each level are clearly defined and necessary authority is delegated to enable execution. The College delegates authority to various positions such as Vice-Principals, Deans, HODs, Coordinators and Managers. These positions in turn delegate authority downwards depending on the nature of work.

The overall governance is participative and goal-oriented. However, while the College believes in decentralized leadership, key decisions that have a long-term implication are reviewed by Principal and top management. The long-term endeavor is to provide complete operational autonomy to the Departments with adequate checks and balance

The decentralization policy followed in the College is depicted below:

- + The Governing Body delegates all the academic and operational decisions based on policy to the Principal

- ✚ The Principal organizes meeting with Vice-Principals and IQAC – Coordinator to formulate common working procedures and entrusts the implementation with the HODs.
- ✚ The HOD's manage the day to day activities of the Department.
- ✚ A team of faculty members and students coordinate the co-curricular and extracurricular activities in the College.
- ✚ Other units of the College like NSS, sports, cultural, library etc. have operational autonomy under the guidance of the various committees, associations and students are involved from various Departments in the decision-taking process.

**Examples of Horizontal delegation of authority and empowerment**

- ✚ Empowerment of Vice Principals for
  - Academic
    - Preparation of academic calendar, workload analysis, introduction of add-on programs, orientation programs and bridge course, lesson plan and all other academic processes
  - Administrative
    - Time table preparation, allocation of class rooms, monitoring of student attendance, uploading of all data, signing authority for some administrative processes
  - Dean
  - Examination
    - Conducting internal examination and university exams, empowered to prepare strategy for orientation for new faculties to train them about invigilation etc., preparation of examination schedule
  - R&D
    - Empowered to decide on equipments to be procured for research through grant or through requisition from the HoDs
    - In house project proposals are approved by him
  - HR and Placement
    - Empowered to conduct pre-placement activities, select the service provider for grooming and training programs, empowered to conduct placement activities with companies that are relevant to the college, conduct alumni meet and other related activities, entry-exit interview
  - HoDs
    - Empowered to take decisions on daily activities of the Department, such as conducting fest, individual time table, faculty workload, allocation of coordinator role, Departmental sub committees
    - Departmental budget, spending on approved budget
    - Schedule for practical examination
    - Internal marks

**Vertical delegation**

- ✚ Program coordinators and event coordinators are empowered to decide on budget and expense for the event and program.
- ✚ NSS coordinator is empowered to decide on NSS activities and budget
- ✚ Physical Education Director is empowered for all sports related activities.



**6.1.8 Does the College promote a culture of participative management? If 'yes', indicate the levels of participative management.**

The College believes in participative management. During the strategy meet conducted once a year, views of faculty, students, administrative staff, and all other stakeholders are elicited and discussed. All the stakeholders are free to reach out to Principal or the Management to put forth their ideas and suggestions.

SL.No	COMMITTEE	CHAIRMAN
1	Committee for Research Development and Sustenance	Dean –Research & Development
2	Committee for Faculty Development	Dean –Research & Development
3	Alumni Association Advisory Committee	Dean –HR & Placements
4	Committee for Staff Development and Welfare	Dean –HR & Placements
5	Women Empowerment Cell	Dean –HR & Placements
6	Sexual Harassment Elimination Cell	Dean – Administration
7	Committee for Feedback Analysis	Dean -Academics
8	Curricular Committee	Dean –Academics
9	Committee for Parent Teacher Association	Dean –Academics
10	Student Council& welfare committee	Dean – Research &Development
11	Review Committee to Eliminate Ragging	Dean -Administration
12	Library Advisory Committee	
13	Behavioral Science & Grievance Readdressal Cell	Dean –Administration
14	Parent teacher association	Dean –Administration
15	Committee for Extension Activities	Dean- Examination
16	Committee for Counseling and Mentorship	Dean- Examination
17	Committee for cultural activities	Dean- Examination

**6.2 Strategy Development and Deployment**

**6.2.1 Does the Institution have a formally stated quality policy? How is it developed, driven, deployed and reviewed?**

Quality permeates every aspect of College's functioning, ranging from recruitment, training and development of faculty to delivery of education services. The quality policy of the institution is committed to pursue global standards of excellence in all our endeavors by

focusing on raising standards of human relations through knowledge building in research, teaching, learning, extension, administration and management

The institution has created quality policies for academic, administrative, environmental, data usage and consultancy. In addition, Student Quality Circle (SQC) is implemented from 2017.

The MC, Governing Council, Principal and IQAC are responsible for development, revisions, deployment and review of quality policies. The parameters considered to augment quality in teaching-learning process includes preparation of lesson plan, transparent evaluation, regular reviews of result patterns and conducting remedial classes at the individual and group levels. The same applies

to excellence in sports, cultural and other extracurricular activities.

Revisions to quality standards are made based on the feedback received from various stakeholders, regulatory changes and technological improvements. The College also has a very effective Internal Quality Assurance Cell that meets twice in a year.

**6.2.2 Does the institute have a perspective plan for deployment? If so, give the aspects considered for inclusion in the plan.**

The visionary management is propelling the College, which has well-defined objectives and has developed a vibrant perspective plans for deployment. In drawing up a plan for the future development of the College, the needs of the students are considered first as they provide us a link to the ever-changing scenario of higher education. Additionally, various

other aspects that are considered include, need for qualified faculty, Infrastructure, R & D needs, engagement with society and industry interaction.

Some of the aspects considered for inclusion in the plan include obtaining recognition as "**Centre for Excellence**". In line with this the College has submitted the proposal to various funding agencies for **Establishment of Incubation Centre** and create an infrastructure under **DST-FIST** program. The College also has plans to go in for **Six Sigma Certification** to ensure quality.

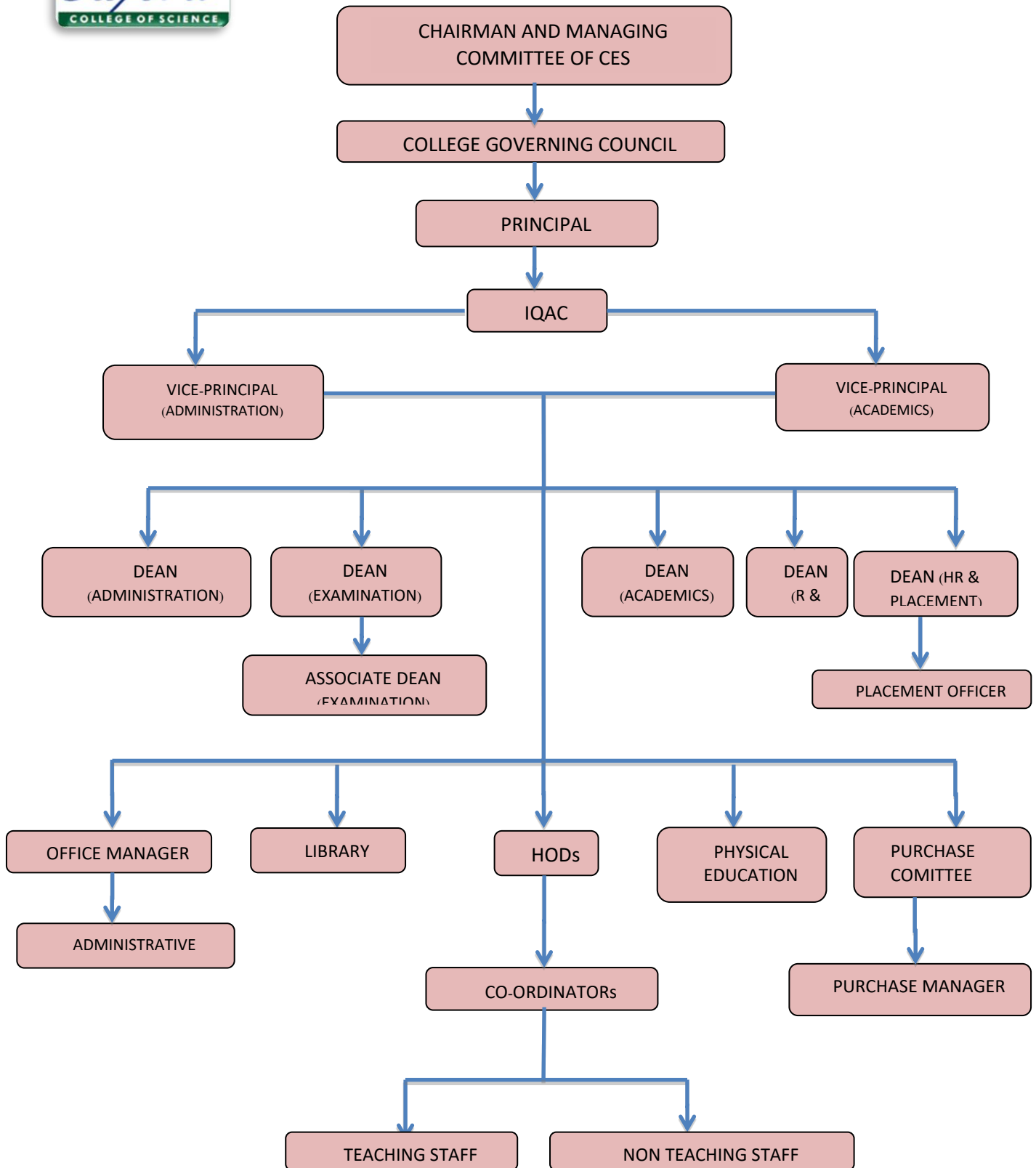
The following is the summary of the perspective plan.

Agenda	Short term	Long term
Infrastructure	Introduce bio process technology facility Wireless networking facility Incubation center Bio informatics facility	Second campus to support the vision to become University Research Centre recognition for all PG Departments with upgraded supporting infrastructure
Academic	Introducing certificate courses on training programs Introduce additional add-on programs catering to all Departments	Vision to become University Providing dual degree Collaboration with foreign universities Every Department to be equipped with more Ph.Ds

		Involve only doctorates for PG teaching. Introduction of staff exchange program
Student development	More in-house projects for UG and PG students More add-on programs Introducing additional programs for holistic development of students Alumni interaction through online platform	Introduction of internship programs Introduction of projects and skill enhancing curriculum in association with the industry and institute for PG students Introduction of summer fellowship program in association with foreign universities Introduction of student exchange program
Research, publications and consultancy	To procure more projects from various funding agencies To increase number of publication in impact factor journals.	Vision to obtain Research Centre recognition for all PG Departments To strengthen consultancy services
Community outreach	To adopt a village Conduct skill development programs for housewives	Independent social units with underprivileged women and housewives and using it as a source for revenue generation
Entrepreneurial and Life Skills development	Entrepreneurial ecosystem to be developed Incubation center	Institution funded startup

**6.2.3 Describe the internal organizational structure and decision making processes.**

The decision making is largely decentralized. The College has delegated authority to various positions such as Vice-Principals, Deans, HoDs, Co-ordinators, Librarian, Physical Education Director, Managers and they have been empowered to take operational decisions in their respective areas. In many cases the Principal is often consulted. The decisions that have long term implications or impact on the College are always taken by the Principal with the involvement of Managing Committee and Governing Council as may be necessary.



6.2.4 Give a broad description of the quality improvement strategies of the institution foreach of the following.

❖ Teaching and Learning

- ✚ Position of Dean-Academics has been created who oversees the quality of teaching and learning

✚ Academic audit is done once every year and the results are analyzed and corrective action taken.

- ✚ Feedback committee has been set up that solicits feed-back from students on quality of teaching
- ✚ Desired Student: teacher ratio is always maintained for both theory and practical classes
- ✚ Minimum qualification and experience for faculty as defined by UGC are in force
- ✚ Faculty development programs are conducted regularly
- ✚ Promoting professional development of faculty by providing support
  - (i) To undergo refresher courses/orientation programs
  - (ii) to equip themselves in modern pedagogical tools
  - (iii) to pursue doctoral programs and
  - (iv) to attend and present the research papers in State/National/ International level Conferences/ Seminars/ Symposium
- ✚ Ample opportunities are provided for holistic development of students
- ✚ Emphasis on Student centric learning process.
- ✚ Remedial classes for slow learners and coaching classes for entry level competitive exams
- ✚ Supplementing classroom learning with field visits, industry visits, enrichment programs, problem based learning, workshops and in-house projects
- ✚ Continuous upgradation of teaching aids and infrastructure including library/lab/IT facilities

#### ❖ **Research and Development**

- ✚ Position of Dean-R&D has been created whose onerous responsibility is to develop scientific temper, research culture and aptitude among students and faculty
- ✚ Extensive investment in state-of-the-art lab facilities
- ✚ Support system is in place to encourage faculty members to obtain grants from various funding agencies for research
- ✚ Promoting interdisciplinary and collaborative research.
- ✚ Faculty members are incentivized to publish papers and obtain grants
- ✚ Motivate the faculty to register for Ph.D., and those with doctoral degree to obtain recognition as research guides.
- ✚ Students are encouraged to carry out in-house research projects beyond what is stated in the curriculum
- ✚ Incubating projects developed by students

#### ❖ **Community engagement**

- ✚ Students are encouraged to participate actively in NSS activities
- ✚ College actively supports specific government programs aimed at improving community living Ex. Swachh Bharath Abhiyan
- ✚ Active in conducting social awareness programs and creating awareness about environment
- ✚ Special programs are regularly conducted by the students for physically challenged persons and individuals without family support
- ✚ Students are encouraged to visit schools, orphanages, old age homes and NGOs to sensitize them about societal problems and inculcate the spirit of social responsibility

- ✚ College ensures every Department organizes at least one community engagement activity in a year
  - ✚ College has introduced “Community Development” as one of the Co-curricular activity
  - ✚ Commemoration days are celebrated meaningfully.
- ❖ **Human Resource management**
- ✚ Dean(Academics) has been given the responsibility to analyse workload and recommend appointment of faculty
  - ✚ Faculty performance appraisal system is in vogue to determine increments and promotions
  - ✚ College has set up HR and Placement Cell headed by Dean that carries out
    - ✚ Entry/Exit interview
    - ✚ Induction training
    - ✚ Recommends to retain qualified & talented faculty and supporting staff
    - ✚ Conducts faculty improvement programs
    - ✚ Facilitates placement for students and
    - ✚ Implements HR related policies and procedures.
    - ✚ External agencies are engaged to provide soft skill training to non-teaching staff
- ❖ **Industry interaction**
- ✚ Every Department is required to organize minimum of two Guest lectures for every semester and provide opportunities for interaction inviting experts from Industry
  - ✚ Industry visits are regularly organized both within and outside state
  - ✚ HR & Placement Cell facilitates internship in industry for students
  - ✚ UG/PG students carry out short-term projects in industry
  - ✚ Add-on courses are offered in collaboration with industry Eg. CADD & MMD, SAS
  - ✚ Biotechnology Finishing School has been set up under the GoK program to bridge the gap between industry and academia.
  - ✚ MOUs are in place with various industries

**6.2.5 How does the Head of the institution ensure that adequate information (from feedback and personal contacts etc.) is available for the top management and the stakeholders, to review the activities of the institution?**

The observations of Local Inspection Committee (LIC), Bangalore University and AICTE are updated to the Management during Review Meetings held once in a month. All the feedback collected through various channels viz., online feedback, parent teacher meeting, student council, informal discussions etc., are provided by IQAC. The Head of the Institution meets with the top management every fortnight or during review meeting held quarterly wherein the feedback received are discussed. All activities are also updated in the college and departmental annual reports.

**6.2.6 How does the management encourage and support involvement of the staff in improving the effectiveness and efficiency of the institutional processes?**

The Management ensures that all the members of the staff understand and share the Vision and Mission of the College. This is achieved through periodic Staff Development Programs, transparency of policies, and sharing of responsibilities. The College has taken number of steps to ensure that the staff is fully involved in functioning of the College. This includes:

- ✚ Clear definition of roles and responsibilities
- ✚ Delegation of decision making authority to give effect to roles and responsibilities
- ✚ A comprehensive appraisal system to aid development of the staff
- ✚ Involvement of the staff in strategy meet
- ✚ Clear escalation matrix to resolve issues faced by staff
  
- ✚ Training of the non-teaching staff

**6.2.7 Enumerate the resolutions made by the Management council in the last year and the status of implementation of such resolutions.**

Resolutions made by the Governing Council in April 2016 and its implementation status

Sl. No.	Resolutions made	Implementation status
1.	Introducing various Add-on programs improve quality of education thereby improve admission	Add-on programs such as CSIR-NET/GATE coaching, CADD, Software Testing and Selenium etc. have been introduced for PG students in association with Technical Service Providers
2.	Setting up NCC wing to inculcate discipline, courage, commitment and selfless service among the youth	Application has been submitted to No.1 Karnataka Batalion. Alumni having 'C' Certificate was identified and has been appointed as Faculty and NCC officer. The authorities have verified the certificates of NCC officer and have approved to set up the wing verbally. Official letter awaited.
3.	Introduce UGC sponsored Vocational courses	Domain for vocational courses has been identified. Waiting for UGC notification to apply
4.	Submission of proposals to National funding agencies	Various proposals have been submitted viz., 1. UGC - MRP scheme – Approved and project ongoing 2. VGST – SMYSR scheme – Result awaited 3. KBITS – BiSEP program – Shortlisted for Physical Infrastructure Inspection, Result Awaited

		<p>4. DST – FIST program – Presentation is done. Result awaited</p> <p>5. NITI AAYOG – ATAL Incubation Centre – Result Awaited</p> <p>6. KBITS – Technology Business Incubator – Result Awaited</p>	
5.	Recognition of Research Supervisor	<p>Eligible Guides: Dr. Sangita Roy: Dr. Kavyashree, R Dr. Bharathi, S. Dr. Abdul Nayeem Dr. Pramod Dr. Raghavendra Dr. Nirmala Nair Dr. Meenakumari</p>	<p>Recognized</p> <p>University Notification Awaited</p>
6.	Submission of LoI and SSR for NAAC – Accreditation Cycle II	SSR is prepared and LoI to be submitted	
7.	Appointment of Parent Relation Officer (PRO)	PRO has been appointed who is taking care of admission process and also student related matters	
8.	Career Counseling by PRO	PU colleges and schools offering 12 <sup>th</sup> has been shortlisted and college brochure has been circulated. Career counseling will be undertaken	
9.	Set up Purchase section in HSR campus exclusively for Science college	Under Process	
10.	Appointment of Office Superintendent/Manager	Under Process	
11.	Branding – Six Sigma Certification	Under Process	

**6.2.8 Does the affiliating University make a provision for according the status of autonomy to an affiliated institution? If ‘yes’ what are the efforts made by the institution in obtaining autonomy?**

Yes, there is a provision for according the status of autonomy by the affiliating University. The College has not yet decided to apply for an autonomous status. The College is making efforts in strengthening research activity, attracting top quality faculty, improving the quality of student intake, infrastructure, placement, offering skill based programs and so on in order to apply for autonomy. Soon-after the College is able to shoulder the responsibility of autonomy, it shall seek the autonomous status.



**6.2.9 How does the Institution ensure that grievances/complaints are promptly attended to and resolved effectively? Is there a mechanism to analyse the nature of grievances for promoting better stakeholder relationship?**

Grievances are received through various channels and are usually resolved at the point of receipt itself. For instance, students normally file complaints to the Grievance cell and the committee meets and resolves the issue. Similarly, faculty members approach HOD who is empowered to resolve the issue. If the complaints cannot be resolved at the point of receipt the matter is escalated to Principal for final decision. All the grievances/complaints received and the corresponding resolutions are recorded in writing and available for analysis and improvements.

Online link and suggestion box are introduced for submission of grievances by the students. For exam related issues grievance book is maintained in the office.

The student nominees of the governing council may discuss grievances during the management council meeting. Student welfare officer also communicates grievances to the principal.

Below are some examples of grievance redressal in the past five years:

- ✚ Water coolers were installed in all floors
- ✚ Canteen was introduced
- ✚ Sports complex was introduced
- ✚ No due certificate process is being implanted with better efficiency

College has entrusted Dean (Administration) the responsibility of overseeing the Grievance Redressal and Behavioral Cell.

**6.2.10 During the last four years, had there been any instances of court cases filed by and against the institute? Provide details on the issues and decisions of the courts on these?**

None.

**6.2.11 Does the Institution have a mechanism for analyzing student feedback on institutional performance? If ‘yes’, what was the outcome and response of the institution to such an effort?**

The College has mechanism for analyzing student feedback. The students can provide feedback on institutional performance through various channels such as online feedback portal introduced in 2017, suggestion boxes, students council, grievance redressal cell and feedback forms. Based on the type of feedback respective committees meet and address the issues. Some of the feedback is also discussed at the annual strategy meet and the Governing Council meet.

**6.3 Faculty Empowerment Strategies**

### **6.3.1 What are the efforts made by the institution to enhance the professional development of its teaching and non-teaching staff?**

#### **Teaching staff:**

- ✚ Faculty development programs covering both technical and non-technical topics are conducted in the College every year
- ✚ Faculty is encouraged to
  - participate in external Faculty development programs, refresher courses, training program, workshops, seminars and present poster/paper in conferences to update their technical/academic skills. Expenditure incurred is reimbursed by the College
  - register for higher degree either M.Phil or Ph.D.
- ✚ College has well-equipped library that is continually upgraded based on the requirements of faculty

#### **Non-teaching staff**

- ✚ College organizes soft skill training program once every year to groom their personality
- ✚ Non-teaching staff are encouraged to use the library to upgrade themselves.
- ✚ Computer training program is provided to all.
- ✚ On-the job training is provided in every Department to improve efficiency. Examples of the training provided for the Non-Teaching Staffs are: Maintenance of stores in labs (2014-15); Procurement procedures (2015-16); Technical Skill Development program (2015-16); organizational behavior (2015-16)
- ✚ Encouraged to enroll for higher studies either through correspondence or evening College

### **6.3.2 What are the strategies adopted by the institution for faculty empowerment through training, retraining and motivating the employees for the roles and responsibility they perform?**

The faculty development and other training programs are designed to empower the faculty to seek higher responsibilities/positions. The faculty is empowered through appropriate delegation of authority to enable them to discharge their responsibilities. The institution imparts following strategies for faculty empowerment:

- ✚ Faculty members are deputed to attend refresher course and orientation course from time to time to enhance their knowledge in their respective subjects.
- ✚ Faculty members given with full freedom to express their views about academic and administrative matters.
- ✚ Professional trainers are invited to equip the faculty for self-evaluation and find solutions for the threats and weaknesses.
- ✚ Staff will be promoted from existing position as soon as their up-gradation of qualification.

### 6.3.3 Provide details on the performance appraisal system of the staff to evaluate and ensure that information on multiple activities is appropriately captured and considered for better appraisal.

The performance appraisal is based on a comprehensive self-appraisal form that each

The academic audit evaluates **Competency index, Complacency index and Consistency index** of all faculties, based on ICT propensity, academic score, 360-degree feedback score, dispersion score, self evaluation score etc.

staff/faculty is required to complete. The self-appraisal form requires details such as subjects taught, projects undertaken, papers presented, conferences attended, additional responsibilities undertaken and so on. The sample form is attached in annexure. Online 360-degree feedback is introduced from 2017.

Thereafter, both HOD and Principal independently rate the appraisee on those parameters. The final rating is based on the average of the three ratings.

### 6.3.4 What is the outcome of the review of the performance appraisal reports by the management and the major decisions taken? How are they communicated to the appropriate stakeholder?

A detailed meeting is held with among the Chairman, Principal, Vice-Principals and HOD to discuss the performance and moderate the ratings if necessary. The Principal updates the final rating to the appraisee. Gaps if any in the performance are identified and documented. Reference is also made to the performance appraisals of the earlier years.

✚ The Outcome of the review of performance appraisal reports include, increments and promotions that in turn contributes to the improvement in performance of the staff, better motivation and increased organizational identification. Based on performance appraisal following promotions and increments were executed

- ✓ Promotion of HOD to Principal during the year 2013-14
- ✓ Promotion of HOD to Vice Principal during the year 2013-14
- ✓ Promotion of HOD/Faculty as Dean during 2013-14
- ✓ Faculty given Additional responsibility as Admission Coordinator during 2014-15
- ✓ Salary increment for few faculties

**6.3.5 What are the welfare schemes available for the teaching and non-teaching staff? What percentage of staff have availed such schemes in the last four years?**

The College provides the following welfare schemes.

- + Provident Fund
- + ESI
- + Various types of leave including casual leave, earned leave, study leave, maternity leave, long leave
- + Subsidized canteen facility
- + Sports facility including gymnasium
- + Subsidized education for the children
- + Short term interest free loans
- + Salary advance
- + Financial support for specific requirements such as marriage, hospitalization
- + Free Healthcare/Dental care and curative treatment Facility
- + Free transport facility

All the eligible staff have availed the above facilities.

**6.3.6 What are the measures taken by the Institution for attracting and retaining eminent faculty?**

The College has instituted several measures to attract/retain eminent faculty

- + Advertisement in leading newspapers and website to attract eminent faculty.
- + Robust performance appraisal mechanism
- + Opportunities for professional development like sponsoring for seminars, conferences, training programs, workshops, FDPs etc.,
- + Freedom to pursue academic pursuits, Equal opportunities for promotions
- + Providing necessary facilities, extra allowances and position in College administration, Opportunities to engage in research activities through industry collaboration and 28 sister institutions.
- + Well-defined roles and responsibilities with adequate delegation of authority to take independent operational decisions
- + Welfare schemes as set out in 6.3.5
- + Eminent faculty is retained as visiting faculty after retirement.
- + Salary remittance during vacation.

**6.4 Financial management and Resource Mobilization**

**6.4.1 What is the institutional mechanism to monitor effective and efficient use of available financial resources?**

A systematic mode has been evolved and developed for effective appropriation of the resources of the College. The resources mainly comprise of tuition fees, admission fees, lab fees, library and RR fees, registration fee and sports and games fee. In addition to it, the grants received from Government and other funding agencies. The Income so generated will be mobilized and appropriated for meeting the recurring and non-recurring expenditure of the College.

The draft budget will be discussed in a meeting presided over by the Principal in pursuit of prioritizing the multiple activities of the College like academic, administrative, curricular, extra / co / beyond / curricular activities, research projects etc., & draft budget estimate shall be laid before the Governing Council for scrutiny. After its approval, it will be submitted to the Management for decisive approval. Soon after the approval of the Management, the budgetary provisions will be given effect to from 1<sup>st</sup> April, the date on which the financial year commences. The administrative and supportive activities have been carried out by the following section among others headed by the functionaries indicated against each.

- a) Finance Section: headed by Finance Officer (FO)
- b) Accounts and Audit Section: headed by Accounts Officer / Audit Officer (AO)
- c) Purchase Section: headed by Purchase Officer (PO)

Duties of Finance Section, Accounts and Audit Section and Purchase Section are mentioned in Annexure 6.4.1

**6.4.2 What are the institutional mechanisms for internal and external audit? When was the last audit done and what are the major audit objections? Provide the details of compliance.**

The accounts and audit sections will carry-out internal audit from time to time at least once in a month of the accounts and cash counters and seek clarification on the lacunae if any. The audit observations will be attended and report of compliance submitted to waive the audit objections. The external audit of the entire accounts of the College are held by M/s. S. Venkatesan & Co. Audited statement of accounts and audit report will be submitted to the Management under copy to the Principal. The audit objections and observations if any will be clarified at the stage of audit itself and if there are any further outstanding observations reflected in the audit report will be set right immediately and a report thereof sent to the auditors.

**6.4.3 What are the major sources of institutional receipts/funding and how is the deficit managed? Provide audited income and expenditure statement of academic and administrative activities of the previous four years and the reserve fund/corpus available with institutions, if any.**

The main source of income comprises of tuition and other fees, sale of prospectus, smart card fees, interest on investments and grants from various funding agencies. The research grants released by the State Government and Other funding agencies, have been appropriated and utilized for the purpose for which they have been supported. There has not been any deficit as reflected in the audited statement of accounts for the last four

years. The fixed assets including land building, equipments, furniture, fixtures, library books, plant and machinery, teaching aids, office equipments have been accounted for as an integral component of balance sheet. The audited statement is available in annexure 6.4.3.

#### **6.4.4 Give details on the efforts made by the institution in securing additional funding and the utilization of the same (if any).**

In addition to the regular sources of income, the College has explored all the possibilities of securing perpetual funding from several funding agencies as financial support for research activities and research projects since the College has been recognized under section 2(f) and 12(B) of UGC Act 1956. The research grants on particular projects received have been utilized for the specified research projects only. Over a period of several years, research projects related grants have been received from Vision Group on Science and Technology (VGST), Government of Karnataka, Department of Science & Technology, Government of India, K-FIST from VGST.

Biotechnology Finishing School (BTFS) has been established with full financial support of the Department of IT, BT and S&T of the State Government. Recently, the College is considered for support under DST-FIST program and Department of Biotechnology is recognized to host BiSEP (formerly BTFS) for second cycle.

### **6.5 Internal Quality Assurance System (IQAS)**

#### **6.5.1 Internal Quality Assurance Cell (IQAC)**

##### **a. Has the institution established an Internal Quality Assurance Cell (IQAC)? If 'yes', what is the institutional policy with regard to quality assurance and how has it contributed in institutionalizing the quality assurance processes?**

The institution has established Internal Quality Assurance Cell (IQAC) in the year 2011. The IQAC has external members in the committee and the institute has appointed Coordinator for IQAC whose primary responsibility is to convene the meetings with various committees, obtain feedback and frame quality policies accordingly. The several policies framed to ensure quality assurance include

(i) Admission and Administrative policy (ii) Teaching, Learning and Evaluation policy (iii) Research, Development and Sustenance policy (iv) Human Resource and Placement policy (v) Student Welfare policy (vi) Up-gradation and procurement policy (vii) Inclusive policy (viii) Computer usage policy (ix) Network policy (x) Consultancy policy

The said policies have contributed in institutionalizing the quality assurance in the following ways

- ✚ Stringent yet flexible admission process
- ✚ Efficient academic and administrative process
- ✚ Up-gradation of infrastructure based on students needs viz., providing adequate number of class rooms, laboratories, spacious library, canteen, sports facility
- ✚ Transparency in purchase of resources

- ✚ Optimization and integration of modern methods of teaching and learning
- ✚ Effective recruitment process to ensure quality in teaching
- ✚ Conducive ecosystem for research and sustenance
- ✚ Transparent evaluation system
- ✚ Active, attractive and successful placement service
- ✚ Efficient and encouraging platform for student expression

In addition, the IQAC has defined objectives that are mentioned below to ensure quality sustenance.

- ✚ Evolve efficient, consistent and progressive strategy to achieve excellence in teaching- learning and administrative process
- ✚ Facilitate quality culture through abstracting, designing and executing quality initiatives
- ✚ Provide sustainable mechanisms for continuous self-evaluation and improvement to achieve quality benchmark
- ✚ Ensure participative organizational functioning involving all stakeholders
- ✚ Enable adequate support structure and services for effective dissemination of quality standards

**(i) How many decisions of the IQAC have been approved by the management/authorities for implementation and how many of them were actually implemented?**

The IQAC makes several recommendations from time to time. These are placed before the Governing Council for final approval. Of the 11 recommendations made during 2015-16, 8 have been implemented successfully and the remaining 3 are under process of implementation as depicted in 6.3.2.

**(ii) Does the IQAC have external members on its committee? If so, mention any significant contribution made by them.**

Yes, the IQAC has external members on its committee. Their significant contributions include

- ✚ Enhanced Industry Institution Interface (3Is)
- ✚ Improvise Campus Management System
- ✚ Encourage In-house Research Projects
- ✚ Provide a unique Platform “Students Science Association” for UG students for presenting Research papers.
- ✚ Orientation on Research Methodology for PG Students

**(iii) How do students and alumni contribute to the effective functioning of the IQAC?**

The representative of both student council and alumni association are members of IQAC and actively participate in the deliberations of IQAC meetings. Their suggestions include,

matters that impact the students such as library, laboratory, computer facilities, teaching aids, quality of teaching, short term courses that complement the academic syllabus amongst others. All these suggestions received are duly debated and appropriate action is taken.

**(iv) How does the IQAC communicate and engage staff from different constituents of the institution?**

IQAC communicates through various means viz., E-mails, Notice board, Circulars, SMS, Meetings.

**6.5.2 Does the institution has an integrated framework for Quality Assurance of the academic and administrative activities? If 'yes', give details on its operationalization.**

Yes, the College has an integrated Quality Assurance framework. IQAC has the primary responsibility for framing and updating the quality policy covering both academic and administrative activities. A single body is better placed to ensure consistency in execution of the quality policy. The key activities covered by quality policy include faculty development, admissions, examinations, research, development & sustenance, Human Resource & Placement and so on. IQAC has also defined metrics for each of key activities, which the committee are expected to follow. The quality framework is hosted on a campus management system and is accessible to all teaching and non-teaching staff of the College.

The operationalization of the integrated framework for quality assurance is as follows:

- ✚ The IQAC plans the academic and administrative activities of the College based on the inputs received from various committees under its umbrella
- ✚ The IQAC prepares a time-bound proposal for implementing the integrated framework that includes:
  - the action plans to be implemented,
  - committee responsible for its implementation
  - review meeting for reporting the progress made
- ✚ The IQAC Coordinator assigns responsibilities to the Deans, HODs, Coordinators of various committees accordingly after seeking approval from the Principal
- ✚ The Deans, HODs and the Coordinators execute the action plan involving the faculty and students and later evaluate the outcome of various programs.
- ✚ Periodical meeting is held to review the process and the same is recorded
- ✚ Academic and administrative audit is conducted.

**6.5.3 Does the institution provide training to its staff for effective implementation of the Quality assurance procedures? If 'yes', give details enumerating its impact.**

Yes, the institution provide training to its staff in the effective implementation of Quality assurance procedures. It is the responsibility of each committee to provide training to staff members concerned on matter within its domain. The Principal and IQAC Coordinator



hold meetings from time to time to sustain and enhance quality in the institute. IQAC Coordinator oversee the provision of these training programs.

**Table: 109 List of trainings provided and its impact**

Sl.No.	Training provided	Impact
1.	Campus management system	Effective usage of the available system
2.	Office management training	Smooth functioning of day to day activities in office
3.	Technical skill development program for Lab Technicians	Efficient assistance during practical sessions
4.	Organisational behavior	Improved interaction with all the stakeholders
5.	Faculty Development program	Efficient dissemination of knowledge in classrooms

**6.5.4 Does the institution undertake Academic Audit or other external review of the academic provisions? If ‘yes’ how are the outcomes used to improve the institutional activities?**

The academic audit is conducted by Dean-Academics every year. The Academic Audit has sustained and enhanced quality in the institute. The outcome of the audit has helped to improve the academic activities of the Departments in particular and the institution in general. Some of measures suggested include the following:

- ✚ Improving results by providing remedial classes, solving previous years’ question papers, providing question banks and guiding students to improve writing skills
- ✚ Creating research culture in the Department by encouraging students to take up in-house projects
- ✚ Encouraging faculty to improve publications
- ✚ Initiating mentoring system in the Departments.

The external quality review is undertaken by Local Inspection Committee (LIC) of Bangalore University and AICTE on a yearly basis. Any shortcomings observed are required to be addressed immediately before the affiliation is renewed.

The college has introduced academic audit by external quality assurance cell from 2017.

**6.5.5 How are the internal quality assurance mechanisms aligned with the requirements of the relevant external quality assurance agencies/regulatory authorities?**

The internal quality assurance framework has been drafted based on the guidelines framed by various external agencies such as Bangalore University, UGC, AICTE and NAAC. In certain other areas such as canteen the standards prescribed by State Health Department are followed. The College also has plans to go in for ISO certification.

**6.5.6 What institutional mechanisms are in place to continuously review the teaching learning process? Give details of its structure, methodologies of operations and outcome?**

Dean-Academics is responsible for continuous reviewing of the teaching learning process. Dean-Academics obtains inputs from faculty and HoDs and reports to the Principal on a quarterly basis. The methodologies and outcomes are as follows:

- ✚ Lesson plan is prepared by the faculty at the beginning of every semester and is made available to the students. Soft copy of the same is uploaded in the campus management system and the hard copy is documented in IQAC
- ✚ Work done diary is prepared by the faculty on a daily basis and is reviewed by the HoD and then by the Principal every month
- ✚ Experiential learning involving field visits, industry visits, in-house projects are stressed upon
- ✚ Feedback given by the students on the quality of teaching, teaching methods are reviewed and improvements implemented where necessary
- ✚ The outcomes include
  - Enhancement of employment/higher learning opportunities for students
  - Holistic development of students
  - Attracting better quality of students
  - Enhancement of the reputation of the College
  - Attracting eminent guest/full time faculty

**6.5.7 How does the institution communicate its quality assurance policies, mechanisms and outcomes to the various internal and external stakeholders?**

The College hosts the quality assurance policies on the campus management system and is available to all the stakeholders. The quality policies are also disseminated through display boards located across the campus, prospectus, brochures, leaflets and website. The outcomes are presented in Annual Quality Assurance Report, College Annual Report, proceedings of the Governing Council and Strategy Meets.

**Any other relevant information regarding Governance, Leadership and Management which the College would like to include.**

The Oxford Educational Institutions under the aegis of The Children's Educational Society has grown from strength to strength and now comprises of 28 institutions providing world class education and training in almost 85 streams. The institution caters to education right from kindergarten to post-graduation and Doctoral programs in faculties as diverse as medical and paramedical sciences to Engineering, Management and Law. This has encouraged inter-disciplinary learning and collaborative research across the sister concern institutions. The sprawling campuses in the heart of the city well



## *Criteria VI: Governance Leadership and Management*

connected to various industrial and educational corridors provide the institutions a beautiful environment for networking and collaborations.

The management of the institution takes pride in constantly upgrading the infrastructure and various amenities while the faculty members strive hard to provide world class education and exposure to the students. This constant endeavor has made The Oxford

Institution one of the most revered and sought after institution for its quality education and for its research environment. The institutional ranking by various surveys and the students ranking in University exams and various national level competitive exams stand testimony for the quality and standards set by the institution. The laboratory infrastructure and the faculty strength pave way for funding by government agencies to strengthen the

Departments further.

Apart from providing quality education and training the future generation for a better tomorrow, the institution provides back to the society by way of various activities such as medical camps, free dental check-ups, awareness programs etc., especially to the deserving communities. The management, the faculty members and the staff are relentlessly working towards our nations march towards building a knowledge society.

## CRITERION VII: INNOVATIONS AND BEST PRACTICES

### 7.1 Environment Consciousness

#### 7.1.1 Does the Institute conduct a Green Audit of its campus and facilities?

The College has constituted a Green Audit which is been conducted by External Quality Assurance Cell. Detailed Green audit report is attached in annexure.

#### 7.1.2 What are the initiatives taken by the College to make the campus eco-friendly?

**Table 110: Initiatives taken by the College to make the campus eco-friendly**

Initiatives	Description
Energy conservation	Electronic gadgets like projectors, computers and printers are purchased after checking energy ratings. The Computer display units have been upgraded to LED. The College does not use any tungsten or halogen lamp lighting in the entire building.
Use of renewable energy	The College is exploring different avenues to install solar panels so that solar lighting and heating can be facilitated
Water harvesting	A Model of Rainwater Harvesting System has been set up in the campus to encourage students to implement the same in their residences. The water from distillation units of various Departments is used for washing decontaminated glasswares.
Check dam construction	There is no check dam in the campus as the well-designed Storm Water System and Water Storage System avoid any water logging and flooding in the campus. The infrastructure of the College comprises of well channeled drains within and outside the campus.
Efforts for Carbon neutrality	Efforts are made to reduce carbon emissions in the campus. It furthers awareness among the students on Carbon Credits, Carbon Neutrality and its advantages through the subject of Environmental science in the first-year undergraduate program. The laboratory and accessory equipment's used are of the latest technology. In addition, only LPG cylinders are used for laboratory purpose. The institution has installed low carbon emitting Kirloskar-make green

	generators in the campus. The wide circumferential gardening system in the College also helps in the carbon neutralization.
Plantation	The College has taken the initiative of planting & nurturing 10 medicinal plants every year. Trees are planted by the students on both sides of the road outside the campus. NSS also takes an active role in spreading awareness. The College follows a unique & inimitable culture of welcoming the guests through plant saplings instead of flower bouquets and distribution of plants as token of appreciation to guests and achievers, instead of synthetic mementos.
Hazardous waste management	The only hazardous waste that is generated in the College is from the laboratory chemicals that are used in the regular practicals included in the curriculum. Appropriate measures are taken in collaboration with BBMP to dispose of the material.
e-waste management	Various awareness programs and student activities are conducted like Buy back scheme, Auction, Recharge /repair/exchange of UPS and batteries by the suppliers, Donation of used computer systems and printers in good condition to under privileged students in various organizations, display of wall posters / slogans, E-waste is sold as scrap to private agencies which recycle it.

## 7.2 Innovations

### 7.2.1 Give details of innovations introduced during the last four years which have created a positive impact on the functioning of the College.

#### **Peer Teaching:**

From the year 2016, the College has introduced student facilitated peer teaching, in which the postgraduate students take classes for undergraduates on various soft core subjects. Based on the performance in the previous academic year, the post graduate students will be screened via group discussions, presentation skill, Interactive ability and demo classes supervised by the subject experts (teachers) to serve as teaching assistants.

Students learn a great deal by explaining their ideas to others and by participating in activities in which they can learn from their peers. They develop skills in organizing and planning learning activities, working collaboratively, giving and receiving feedback and evaluating their own learning. It also provides them considerably more practice than traditional teaching and learning methods in taking responsibility for their own learning. After completion of their assigned course the College rewards the peer teachers for their

contribution. This practice has immensely helped the students to learn the proper pedagogy of teaching, increased confidence levels and developed passion towards the profession.

#### **Student Quality Circle (SQC)**

The College holds an effective quality circle which is a participatory management process in solving various issues related in effective academic execution. Student Circles are formed with their peers who work together in operation who meet at regular intervals to discuss problems of quality and to devise solutions for improvements. Quality circles act as an autonomous council, led by a student representative and a senior faculty. Taking an issue, after completing analysis, the council often present their findings to management and then handle implementation of approved solutions. The Quality circle practice greatly helps the students to learn new skills hidden potential, organizational working environment and overall productivity of organization by improvement.

#### **Online Psychometric Assessment**

Since 2016 the College has introduced psychometrics which deals specifically with psychological measurement of the students. The questions are designed by the psychologists ensures the effective measurement of skills, knowledge, abilities, attitudes, personality traits, and educational achievement. The test is conducted on-line for all the undergraduate and post graduate students through e-pathasala portal which will be analysed by the experts and the analytical report will be communicated to the students. Based upon the psychometric report the students are asked to take up the remedial courses with the help of the counselling cell. The students diagnosed with psychological, emotional or behavioral difficulties are helped greatly to face the challenges and to be accommodative in the best learning environments to meet their needs, and place them in classrooms where they can be challenged and motivated to grow both intellectually and personally.

#### **Online Student Feedback System**

Online feedback system is in place in the College with campus management system to manage student data. Student Online Feedback Systems provides the students the capabilities for selecting subjects for feedback and generate the report automatically, build student details, student-related data needs in the College. The Online Student Feedback is designed in such a way that it provides the proper feedback on teachers as per the categories and parameters. After giving feedback by every student the reports are collected and calculated the overall grade of each subject and lecturer. The grade report is further analyzed by the HOD and the principal. This in turn helped to increase the overall academic standards quality enhancement in the College.

### **7.3 Best Practices**

### **7.3.1 Elaborate on any two best practices which have contributed to the achievement of the Institutional Objectives and/or contributed to the Quality improvement of the core activities of the College.**

The Oxford College of science considers its best practices as an integral part of the curriculum and a mandatory ingredient for the sustainability of quality in higher education system.

#### **BEST PRACTICES**

##### **1. Title of the Practice**

**Inter institutional activities in teaching learning and research**

##### **2. Goal**

With today's evolving science and technology, there is a desperate need for re-tailoring science education. Interdisciplinary approach is increasingly gaining meaning for the new generation of researchers and educators, as the novel approaches in the areas of science are based on multidisciplinary methods. Often students are confused regarding their future, as they are not aware of the applicative side of their chosen discipline. Furthermore, both undergraduate and postgraduate students encounter frequent gaps in their knowledge because of the lack of coordination and interaction between disciplines. These needs are addressed through inter institutional activities at Oxford.

The Oxford Educational Institutions wings more than 28 Educational Institutes, from Pre-Nursery to Post-Graduate & Doctoral courses including Medical, Dental, Engineering, Management, Nursing, Pharmacy, Physiotherapy, Education, Life Sciences etc. The availability of various disciplines under the The Oxford Educational Institution made the road map easier to achieve collaborative learning through inter disciplinary activities to attain quality in higher education. The College believes cross-disciplinary collaborative learning enables students to develop critical thinking skills, and presents many real-world opportunities in their professional growth.

##### **3. The Practice**

Initially the Principal of the College lists out the possible Collaboration found in the entire educational institution corresponding to various disciplines that can be shared to enhance the overall capacity of collaborative learning for mutual benefit, to increase effectiveness, and to optimally align resources. At the beginning of every academic year the thrust areas of collaborative learning will be discussed at the Departmental level. The same will be carried forward to the Principal and Dean academics to analyze the effectiveness and expected outcome of the proposal. The list of Departments and their required infrastructure will be charted out and communicated to the respective head of the Departments. Whereas individual researchers come to the team with their own set of goals to be attained from the collaboration. The principal investigator of the research lead the team members toward the optimum utilization of the resources provided by the

Institution. The Oxford College of Science also encourages other sister concerns utilize the resources available in the campus.

#### **4. Evidence of Success**

The tie-ups with many sister concern institutions of the Oxford for the In-house research such as “Studying the roles of TLRs mediated responses and characterization of oral biofilm in healthy and inflamed oral samples” was successful in exploring the field of oral health and understanding the dental science in detail. This work bagged the first prize in 7th KSTA National conference.

The collaborative work with The Oxford College of Pharmacy on the aspects of animal biotechnology related work helped in getting acquaintance to animal house facilities. The project after completion was presented in a National conference on “Beyond the frontiers in Science & technology” and won the first prize. Similarly when teachers guide the MDS students of dental College and M.Pharm students of Pharmacy College for their projects, various aspects of pharmaceutical science and dental sciences are understood from the subject point view and are shared with students in teaching.

The research work entitled “Production of Alpha Amylase from *Aspergillus flavus* under solid state fermentation with optimum conditions in collaboration with Department of Biotechnology and Department of Microbiology got published in highly reputed International Journal and was awarded the first prize for the poster presentation at an International Conference.

The faculty guiding the students publishes the research work in the journals. Students Present their Project work in various International, National, and State level Conferences.

#### **5. Problems Encountered and Resources Required**

The College had minimum hindrances in executing the same such as the sister concerns being situated in different campus, functioning under different universities and hence having different academic timeline. Additionally due to the loaded University calendar, time was a constraint and students had to spend extra after the regular working hours. Though initially the students faced difficulty in managing their time, understanding the importance of the same and to excel in their future endeavors, the students took up the challenge and worked for it. Specialized education with increased complexity, requiring input from diverse disciplines and specialties has been well resolved by the subject experts of the respective Departments.

#### **Contact Details**

Name of the Principal: Dr.Kavyashree

Name of the Institution: The Oxford College of Science

City: Bengaluru Pin Code: 560102

Work Phone: 080-30266301/302 Fax: 080- 3026634 Website: [www.theoxford.edu](http://www.theoxford.edu)



E-mail: scienceprincipal@theoxford.edu Mobile: 9886023272

**1. Title of the Practice**

**Effective Recruitment strategies and Selection process**

**2. Goal**

The Oxford College of Science strongly believes in the transformative power of an effective teacher in the collegiate education. Teachers can have an enriching impact on the daily lives of students and their lifelong educational and career aspirations. The College considers hiring, supporting, and sustaining good teachers as one of the most important responsibility. Identifying and selecting qualified and experienced individuals to facilitate learning in a productive and academically enriching classroom environment is integral part of maintaining quality in the higher educational system.

**3. The Context**

Increasing and persistent criticism regarding the effectiveness of teaching continues to be the major concern from all stakeholders. The Oxford College of Science always focuses on the value and use of professional portfolios as a tool for identifying teacher candidates who possess the characteristics of an effective teacher and increased emphasis on educational accountability. Teacher hiring procedures and decisions have far-reaching impact in effective recruitment and advanced selection strategies are well practiced in the College since its inception. The Executives of management exercise a significant degree of discretion in implementing these policies and procedures.

**4. The Practice**

Principal and Dean Academics are the delegated authority to manage recruitment as vacancies arise based on the work load analysis. As the initial step of the recruitment process the announcement regarding the teaching post will be conveyed through various media including the College website and applications are invited. The Completed applications will be reviewed by the Selection team for evidence of qualification, professional skills and relevant experience. Applicants who are determined to be fit for the post will further be reviewed for certification and academic record. Candidates who successfully pass the application and file review process will enter the ready to staff hiring pool. Later Principal will schedule interviews with candidates on a pre-notified date. The interview process includes a thorough analysis on the inter personnel and academic skill of the candidate. The candidate has to present a demonstration session in front of the expert panel and the students of the corresponding subject. The following indicators will be analyzed thoroughly during selection process.

<b>Education</b>	<b>sufficiency/relevancy</b>
Work experience	sufficiency/relevancy

Presentation	adequate/ more than adequate/superior
Communication	
Usage of teaching aids	
Body language	
Confidence level	
Subject knowledge	
Query Clarification	
Personal behaviour	good/ satisfactory/superior

After the demo session, the interview panel will have a discussion with the students about each candidate for the finalization of recruitment process at student level. The selected candidate will have a final personal interview with the executives of selection committee. The newly selected faculty will be inducted with an orientation program for the better understanding of the College structure, tradition, working environment and expectation of the institution. This procedure is followed even for the selection of students for peer teaching.

**5. Evidence of success**

The major evidence of success is the overall quality enhancement in academic performance of the students in both curricular and extracurricular aspects. Striking increase in placements in the last few years. The College is consistently getting University ranks. The number of companies visiting the College for campus placements has increased by 25%. The effective teaching employed in the College has received wide appreciation in the University and the number of students opting for higher education in the College has rose to a great extent. For the outstanding contribution in teaching and research, the College regularly attains best of its ranking in state and national level.

**6. Problems Encountered and Resources Required**

The College did not encounter any problem during the implementation of the above practice. The major resources required were the support of the management which was effectively managed.

Contact Details

Name of the Principal: Dr.Kavyashree

Name of the Institution: The Oxford College of Science

City: Bengaluru Pin Code: 560102

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## Evaluative Report of the Department of Biotechnology

**1. Name of the Department:** Department of Biotechnology

**2. Year of Establishment:**

✚ UG: 1998

✚ PG: 1999

- PG Diploma: 2011
- Ph. D. (under process)

**3. Names of Programs / Courses offered:**

✚ B.Sc., (CZBt; CGtBt; BcGtBt)

✚ M.Sc., (Biotechnology)

✚ PG Diploma course in Cellular and Molecular Diagnostics under Biotechnology  
Finishing School (BTFS) program

✚ Ph. D. (under process)

**4. Names of Interdisciplinary courses and the Departments/units involved:**

**UG – triple major course**

✚ **C. Z. Bt.:** Chemistry, Zoology and Biotechnology

✚ **C. Gt. Bt.:** Chemistry, Genetics and Biotechnology

✚ **Bc. Gt. Bt.:** Biochemistry, Genetics and Biotechnology

**UG – soft core papers**

✚ Environmental Science (EVS)

✚ Banking and Finance

✚ French

✚ Capital market

✚ German

✚ Indian Constitution

✚ Culture, Diversity and Society

✚ Computer applications and Information technology

✚ Entrepreneurship and Innovation

✚ Life skills

✚ Fine Arts

✚ Performing Arts

✚ Community Work

✚ Personality Development and Leadership

**PG – Open Elective papers**

✚ Management Perspectives

✚ Media and Society

✚ Fashion and Apparel Design

✚ Write it Right

✚ Social movement and action

✚ Finance and banking

### 5. Annual/semester/choice based credit system (program wise):

#### ✚ UG and PG courses

2011-12, 2012-13: Semester system

2013-14, 2014-15, 2015-16: Choice Based Credit System

#### ✚ PG Diploma course: Semester system

### 6. Participation of the Department in the courses offered by other Departments:

The faculty of Department has taken class for the following papers for other Department students.

Department	Subject	Semester	Year
Genetics	Cell Biology	PG- I semester	2011 onwards
Genetics	Biochemistry	PG- I semester	2011 onwards
All UG	Environmental Science (EVS) paper	UG- I semester	2014 onwards
All PG	Applied Biotechnology (Open Elective)	PG-III semester	2015
B.A.	Science and Society Soft core	UG-III semester	2015 onwards

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

- ✚ The Department is offering Add-on-programs to PG students in association with the following service providers

Sl.No	Name of Institution/ Industry	Courses (Add-on Program)
1	BioTecNika	CSIR-NET/GATE Coaching
2	RASA Life Science	CADD & MMD

- ✚ Collaborations and MoU's with other industries/companies for internship, training and placement of students of PG Diploma course in Cellular and Molecular Diagnostics

- ✚ PG student's carryout their project work in association with industries/ companies.

The details of collaboration/association are as follows:

Collaboration with Industry/Company	Association with Industry/Company	
Probiosys Center of Excellence in Life Sciences	Biocon	JIPMER, Pondicherry
Bhat Biotech India (P) Ltd	Chromous Biotech Pvt. Ltd.	Allele life sciences
Xcyton Diagnostics Pvt Ltd.	Lab Links Biotech Pvt. Ltd.	Denovo Biolabs Pvt. Ltd.
Livon Biolabs Pvt. Ltd.	Natural Remedies	Rass Biosolution Pvt. Ltd.
Stelis Biopharma	Anthem biosciences	Thermofisher
Stellixir Biotech Pvt. Ltd.	Jubilant Life	GKVK

Genelife Biologics LLP	IBAB	Metropolis India
V.B. Medicare Pvt. Ltd.	Apollo Hospitals, Hyderabad	Manipal Institute of Regenerative Medicine
National Biotech	President-Research and Innovation, R & D Services, SRL Mumbai	National centre for Biological Sciences
Pelican Biotech and Chemical Labs	Connexious Life Science Pvt. Ltd., Bengaluru	Indian Institute of Science
Biozeen Pvt. Ltd.	Polyclone Bioservices Pvt.LTD, Bengaluru	Geniron Biolabs Pvt. Ltd.,
Sangenomics Research Labs	Molecular Pathology Laboratory, SBRL.	Shriram Institute for Industrial Research
Optimus Pharma Consulting	Genelon Institute of Life Science	Quintiles
Thermo Fischer	Aigel Biosolution Pvt. Ltd. Bengaluru.	
Anthem Biosciences	Lupin, Mumbai	

**8. Details of courses/programs discontinued (if any) with reasons:** Nil

**9. Number of Teaching posts**

Designation	Sanctioned	Filled
Professors	01	01
Associate Professors	05	05
Assistant. Professors	04	04

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

Name	Qualification	Designation	Specialization	No. of Years of Experience	No. of Ph.D. Students guided for the last 4 years
Dr. Kavyashree R.	M.Sc., Ph.D., D.Litt	Professor and Head	Plant Biotechnology	20	Guiding (01)
Mrs. Mamatha J	M.Sc., B.Ed., M.Phil.	Associate Professor	Plant Biotechnology	14	NA
Dr. Shivaji Bole	M.Sc., B.Ed., M.Phil. Ph.D.	Associate Professor	Medicinal chemistry	16	Nil
Dr. Abdul Nayeem	M.Sc., Ph.D.	Associate Professor	Plant Biotechnology	13	Nil

Dr. Nirmala Nair	M.Sc., Ph.D.	Associate Professor	Pharmaceutical Biotechnology	23	Nil
Dr. Ritika Chauhan	M.Sc., Ph.D.	Assistant Professor	Microbial Biotechnology	06	Nil
Dr. Rajeshwari H. Patil	M.Sc., Ph.D.	Associate Professor	Cancer and Inflammation Biology	13	Nil
Mr. Punith B.D	M.Sc.	Assistant Professor	Animal Genomics	06	NA
Mr. Bharatesha S	M.Sc.	Assistant Professor	Molecular Biology	01	NA
Dr.Kavisa Ghosh	M.Sc., M.Phil., Ph.D.	Assistant Professor	Environmental Sciences	06	Nil

### 11. List of senior visiting faculty:

Sl. no	Name of the Faculty	Designation
1.	Dr. Ramachandra N B	Professor Department of Zoology University of Mysore, Mysuru
2	Dr. M.J. Vasudev Rao	Former Vice-President, Metahelix Life Sciences Co-Founder, GRSV Consultancy Services Bengaluru
3	Dr. M. C. Gayatri	Retired Professor, Department of Botany Co-ordinator, Department of Molecular Biology Bangalore University, Bengaluru
4	Dr. Vedamurthy A.B.	Professor Department of Biotechnology Karnatak University, Dharwad
5	Dr. M. K. Sateesh	Associate Professor Department of Microbiology Bangalore University, Bengaluru

### 12. Percentage of lectures delivered and practical classes handled (program wise) by temporary faculty: NIL

### 13. Student -Teacher Ratio:

Course	2012-2013		2013-2014		2014-2015		2015-2016		2016-2017	
	Theory	Practical	Theory	Practical	Theory	Practical	Theory	Practical	Theory	Practical
UG	25:1	20:1	25:1	20:1	28:1	15:1	28:1	15:1	28:1	15:1
PG	9:1	9:1	9:1	9:1	9:1	9:1	9:1	9:1	9:1	9:1
PG Diploma	5:1	5:1	5:1	5:1	6:1	6:1	6:1	6:1	6:1	6:1

**14. Number of academic support staff (technical):** sanctioned and filled:

Technical staff (Technician) - Sanctioned: 01, Filled: 01

Support staff (Attender) - Sanctioned: 01, Filled: 01

**15. Qualifications of teaching faculty with DSc/ D.Litt/ Ph.D/ MPhil / PG.:**

Faculty with Ph.D.	Faculty with Ph.D. and NET/ SLET/D.Lit	Faculty with M.Phil. and Ph.D.	Faculty with M.Phil.	Faculty with M.Sc.,SLET and pursuing Ph.D.	Faculty with M.Sc and K-SET.
03	03	02	01	01	01

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

Sl. No.	Name of Faculty	Funding agency	Grants Sanctioned
1.	Dr. Kavyashree, R.	DST, WOS-A scheme,, New Delhi	22 Lakhs
2.	Dr. Abdul Nayeem	VGST, Govt. of Karnataka	30 Lakhs

**17. Departmental projects funded by DST - FIST; UGC, DBT, ICSSR, etc. and total grants received**

Sl. No.	Project/Program	Funding agency	Grants Sanctioned
1.	BTFS program	Department of IT, BT, S & T, GoK	1 Crore
2.	WOS-A scheme	Department of Science & Technology (DST), GoI	22 Lakhs
3.	CISEE scheme	Vision Group of Science & Technology (VGST), GoK	30 Lakhs
4.	FIST program	Department of Science & Technology (DST), GoI	60 Lakhs

**18. Research centre /facility recognized by the University:**

Recognized as Research centre by Bangalore University (2013 onwards).

**19. Publications:**

The Publications of existing faculty of the Department are as follows:

Sl. No.	Name of the Faculty	Publications per faculty
1	Dr. Kavyashree, R.	34
2	Mrs. Mamatha J	08
3	Dr. Abdul Nayeem	11
4	Dr. Shivaji Bole	17
5	Dr. Nirmala Nair	01
6	Dr. Ritika Chauhan	14
7	Dr. Rajeshwari H. Patil	09
8	Mr. Punith B.D.	04
9	Dr. Kavisa Ghosh	04

**Publications by the earlier Faculty: 2011-2016**

(Original research carried out in the Department at TOCS)

Sl. No.	Name of Author and Co-authors	Total Publications
1	Dr. Vedamurthy A.B	42
2	Dr. Joy Hoskeri	
3	Ms. Shruthi S. D	
4	Ms. Chetana S.H	
5	Dr.P.B.Raghavendra	

Sl. No.	Details	Numbers
1	Number of papers published in peer reviewed journals (national /international) by faculty and students (last four years):	71
2	Number of publications listed in International Database	27
3	Monographs	01
4	Chapter in Books	03
5	Books Edited	01
6	Books with ISBN/ISSN numbers with details of publishers	02
7	Citation Index	13
8	SNIP	09
9	SJR	12
10	Impact factor	29
11	h-index	16

**20. Areas of consultancy and income generated:**

The Department offers the following consultancy services to private companies:

Sl. No.	Name of the company	Nature/type of consultancy
1	Wellcrop Biotech Pvt. Ltd.,	<ul style="list-style-type: none"> <li>✚ Mentorship</li> <li>✚ Have provided Biofertilizer consortium for field trials, will be released as a product after validation</li> </ul>
2	Rishi Herbal Technologies Pvt. Ltd., Bengaluru	Phytochemicals isolation, purification and screening facility
3	Orchid Tree	Under Discussion

Additionally, the Department is providing following academic consultancy services:

- ✚ Guiding MDS students of The Oxford Dental College for their project work.
- ✚ Rendering support to carry out PCR and RAPD experiments to Department of Applied Genetics, Biochemistry and Microbiology.
- ✚ Validating the genomic and Plasmid DNA Isolation kits developed by Bhat Biotech, Bengaluru.
- ✚ Extending the instrumentation facility for organizing scientific workshops in association with other Departments.



The following faculty members have rendered/are rendering academic consultancy services to various Colleges and universities:

Sl. No.	Name of faculty	Academic Consultancy	Year
1	Dr. Kavyashree R.	Revaluation coordinator Chief Custodian –UG Member – BOS P.G Diploma Program - CMD Member – BOS – PG, Kristu Jayanti College Member – BOE Mount Carmel College Kristu Jayanti College CMR University TOCS - PG Diploma Program – CMD PIMS - MVoc Subject Expert Committee member Thesis Adjudication Member, Karpagam University Assistant Custodian, Bangalore University PG Examination	2016 2016 2016 2013 2014  2012-2015 2012-2015 2012-2015 2015-2016 2016 2014 2014 2013
2	Dr. Vedamurthy AB	Member, BOS, Kuvempu University, Shimoga Chairman, BOE in Biotechnology (UG)	2012 2012
3	Mrs. Chetana S	Member, BOE (UG)	2014
4	Mrs. Mamatha J	Assistant Custodian- UG Member–BOE Govt. Science College-PG Kristu Jayanti College-UG CMR University-UG/PG St. Josephs College-UG & Christ University-UG	2016  2016 2013-2015 2013-2016 2012-2015
5	Dr. Shivaji B.	Member–BOE, CMR University Konnur University TOCS - P.G Diploma Program –(CMD)	2012-2016 2008 2012-2016
6	Dr. Nirmala Nair	Member – BOE TOCS - P.G Diploma Program- (CMD)	2016

**21. Faculty as members in a) National Committees b) International Committees c) Editorial Boards**

Sl. No.	Name of Faculty	Name of committee	Details
1.	Dr. Kavyashree R	Society of Cytologists & Geneticists, Bengaluru	Executive Council Member
		Selection committee of SRF/JRF for DBT funded project at Department of Botany, Karnatak University, Dharwad	Subject Expert Committee Member
		1. Society of Cytologists and Geneticists.	Life Member

		2. Society of Plant Cell Biotechnology & Molecular Biology 3. Society of Sciences 4. International Society of Plant Morphologists 5. The Indian Science Congress Association 6. Society of Applied Biotechnologists	
		1. African Journal of Biotechnology (AJB) 2. African Journal of Microbiology (AJM) 3. Agricultural Science Research Journal (ASRJ) 4. International Research Journal of Biotechnology (IRJOB) 5. Physiology and Molecular Biology of Plants (PMBP)	Reviewer
		Society of Sciences, India	Fellow of Society of Sciences (FSSc)
		Society of Applied Biotechnologists	Fellow of Society of Applied Biotechnologists (FSAB)
2	Dr. Vedamurthy A.B.	Indian Science Congress Association (L11812), Kolkata	Life Member
		National Environmentalists Association	Life Member
		International Society of Biotechnology	Life Member
		Association of Biotechnology and Pharmacy	Life Member
		Indian Science Congress Association, Bengaluru Chapter	Treasurer (Elected)
		Society of Cytologists and Geneticists, India	Member

## 22. Student projects

### a) Percentage of students who have done in-house projects including inter Departmental/program:

Sl. No.	Year	Percentage	
		UG	PG
1	2012-13	12	87
2	2013-14	14	63
3	2014-15	12	13
4	2015-16	21	15
5	2016-17	10	90

### b) Percentage of students placed for projects in organizations outside the institution i.e. in Research laboratories/Industry/ other agencies:

Sl. No.	Year	Percentage	
		UG	PG
1	2012-13	3	13.40
2	2013-14	5	37.50
3	2014-15	4	86.70

4	2015-16	7	85.40
5	2016-17	2	10

### 23. Awards / Recognitions received by faculty and students

Sl. No.	Name of the faculty	Details of the Award
1	Dr. R. Kavyashree	<ul style="list-style-type: none"> <li>➤ SMYSR Award by Vision Group of Science &amp; Technology, Government of Karnataka, 2012</li> <li>➤ Young Scientist Award for contributions made in the field of medicinal Plant Biotechnology at “3<sup>rd</sup> International Conference on medicinal Plants &amp; Herbal products” organised by Faculty of Medicine and the Institute of Indigenous medicine, University of Colombo, Colombo, Sri Lanka during 19<sup>th</sup> – 21<sup>st</sup> December, 2011.</li> <li>➤ Jnana Fellowship by Karnataka Knowledge Commission, Government of Karnataka, 2011</li> <li>➤ Fellow of Society of Applied Biotechnologists (FSAB) by Society of Applied Biotechnologists, 2010.</li> <li>➤ Fellow of Society of Sciences (F.S.Sc.) by Society of Sciences, India, 2004.</li> <li>➤ Prof. R. P. Roy Prize for the original research paper entitled “A repeatable protocol for the production of gynogenic haploid plants in mulberry variety-S<sub>54</sub>” presented at the “Eighth All India Conference on Cytology and Genetics” held at Bangalore University, Bengaluru during 28<sup>th</sup>-30<sup>th</sup> January, 2001.</li> </ul>
2.	Dr. Vedamurthy A.B	<ul style="list-style-type: none"> <li>➤ Co-author of the 1st Best Poster presentation, awarded at ICEBSR 2012 at Sridevi Institute of Engineering &amp; Technology, Tumkur.</li> <li>➤ Co-author of the 2nd Best Poster presentation, awarded at Jnanarjana 2012 held at The Oxford College of Science, Bengaluru</li> <li>➤ Co-author of the Best Poster award selected at Conference on recent trends in genomics and proteomics. Organised by Dept. of Microbiology and Biotechnology, Bangalore University and Indian Academy Degree College. May 26-27, 2011.</li> <li>➤ Co-author of the Best paper award selected at National Symposium on Role of Life Sciences in Climate Change and Global Warming, Visweswarapura College of Science, Bengaluru, 19-21 Feb2009.</li> <li>➤ Co-author of the Best poster award selected at National symposium on role of life sciences in human welfare Department of Biotechnology and Zoology, V.V. Pura College of Sciences, Bengaluru. 21-23 February 2008.</li> <li>➤ Co-author of the Best poster award selected at National Conference on Biotechnology for rural and industrial development, Department of Biotechnology, Gulbarga University, Gulbarga, 17-19 January 2008</li> <li>➤ Fellow Member of International Society of Biotechnology (FISBT)</li> <li>➤ Elected Fellow Member of National Environmentalists Association (FNEA)</li> </ul>
3	Dr. Raghavendra P B	<ul style="list-style-type: none"> <li>➤ Secured University 2nd rank and a Best M.Sc dissertation work during M.Sc course at Sri Krishnadevaraya University, Anantapur, A.P, India.</li> <li>➤ BCIL Trainee Award - Dr. Reddy.s Laboratories, Hyderabad in Division of Biotechnology (R&amp;D unit) Sponsored by Department of Biotechnology</li> </ul>

		<p>(DBT), Ministry of Science and Technology, Government of India, Biotech Consortium India Limited.</p> <ul style="list-style-type: none"> <li>➤ Council of scientific and Industrial Research (CSIR), Government of India, research fellowship for graduate program.</li> <li>➤ Research Fellowship for International exchange student for 6 months at Medical University of Graz, Graz, Austria.</li> <li>➤ FASEB MARC Travel Award for FASEB Conference-Experimental Biology.</li> </ul>
4	Dr. Abdul Nayeem	<ul style="list-style-type: none"> <li>➤ Secured University 4<sup>th</sup> rank in M.Sc. (Biotechnology), Gulbarga University, Gulbarga, India.</li> <li>➤ Awarded DBT-Post Doctoral Research Associate Fellowship to carryout research at Indian Institute of Horticultural Research (IIHR), Bengaluru, India.</li> <li>➤ Awarded II prize for paper presentation at 2nd National Conference on Biotechnology for Industrial and Rural Development (NCBIRD 2008), Organized by P.G. Dept. of studies in Biotechnology, Gulbarga University, Gulbarga.</li> </ul>
5	Dr. Shivaji Bole	<ul style="list-style-type: none"> <li>➤ Awarded first prize for paper presentation at National conference on Beyond the frontiers in science &amp; technology. Held on 27.03.2011-28.03.2014 at The Oxford College of Science, Bengaluru.</li> <li>➤ Awarded first prize for paper presentation at Conference on Recent Trends in genomics and Proteomics. Conducted during 26<sup>th</sup> and 27<sup>th</sup> May 2011. Dept of Biotechnology and Microbiology, Bangalore University, Bengaluru.</li> </ul>
6	Mrs. Mamatha J	<ul style="list-style-type: none"> <li>➤ First Prize - Poster Presentation at International conference on microbial Technology, Shridevi Institute of Technology, Tumkur in 2012</li> <li>➤ The Best Research Article Award at National Level conference on computational Biology, Pharmaceuticals and Life Sciences (NCCBL-2), MLACW, November 23-24<sup>th</sup> 2012.</li> <li>➤ Best poster presentation Award at National symposium on role of life sciences in human welfare: 21-23 February 2008.</li> </ul>
7	Dr. Joy Hoskeri	<ul style="list-style-type: none"> <li>➤ Young Gun Award at National conference, Tumkur University, Tumkur</li> </ul>
8	Mr. Punith B.D	<ul style="list-style-type: none"> <li>➤ Best poster presentation award “3<sup>rd</sup> International Conference on Genomics and Proteomics Research”, May 28<sup>th</sup> – 29<sup>th</sup> , 2015, held at Bengaluru, India. 2015:</li> <li>➤ Best paper (oral) presentation award, IX Biennial Animal Nutrition Association Conference, January 22-24, 2015 held at Guwahati, Assam, India. 2015:</li> <li>➤ Travel Grant from John E. Fogarty Foundation and New York Academy of Sciences (USA) to Attend “Advances in Plasmodium vivax Malaria Research” Meeting, May 28 - 29, 2013 held at Cosmo Caixa, Barcelona, Spain (Not availed).</li> </ul>
9	Dr. Ritika Chauhan	<ul style="list-style-type: none"> <li>➤ Awarded first prize for poster presentation at National conference on New opportunities and challenges in microbial research, Bharathidasan University, Trichirappalli, Tamil Nadu. On 5<sup>th</sup>-6<sup>th</sup> September-2013</li> </ul>

Awards / Recognitions received by students

Sl. No.	Details	Number of students
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1	Bangalore University Second Rank	01
2	Best Poster Presentations	06
3	Best Oral Presentations	02
4	Best Student Awards	08
5	1 <sup>st</sup> Position in International Throw Ball	01
6	1 <sup>st</sup> position in National Gymnastics	01

#### 24. List of eminent academicians and scientists / visitors to the Department

Sl. No.	Academicians/Scientist/Visitors
1.	Dr. Raghavendra Bhatta Director NIANP (ICAR), Bengaluru
2.	Dr. P.S.P. Gupta Principal Scientist ICAR-NIANP, Bengaluru
3.	Dr. Sumanta Nandi Senior Scientist ICAR-NIANP, Bengaluru
4.	Dr HB Singh Officer-in-charge, Women Scientists Scheme & Cognitive Science Research Initiative, DST, New Delhi
5.	Dr Neeta Singh Professor & Head, Dept. of Biochemistry, All India Institute of Medical Sciences, New Delhi
6.	Dr Poonam Kakkar Chief Scientist & Head, Herbal Research Division Indian Institute of Toxicology Research, Lucknow
7.	Dr VK Bhasin Professor, Dept. of Zoology, University of Delhi, Delhi
8.	Dr Narendra Jawali Former Head, Molecular Biology Division, Bhabha Atomic Research Centre, Trombay, Mumbai
9.	Dr. DJ Bagyaraj NASI Sr. Scientist & Chairman, Centre for Natural Biological Resources and Community Development, Bengaluru
10.	Dr Amitabh Krishna Professor, Dept. of Zoology, Banaras Hindu University, Varanasi
11.	Dr. S.R.Rao Advisor, Department of Biotechnology, New Delhi
12.	Prof. M.K.Sridhar Member Secretary, Karnataka Knowledge Commission, Government of Karnataka
13.	Dr. Jagadish Mittur Head-BTFS Facilitation Cell KBITS, Government of Karnataka
14.	Prof. V.Siddappa Former Vice Chancellor, Bangalore University
15.	Dr. Vasudev Rao Ex Vice-President, Metahelix Life Sciences & Co-founder, GRSV Consultancy Services, Bengaluru
16.	Dr Anirban Chatterjee

	HOD, Department of Periodontology, The Oxford Dental College, Bengaluru.
17.	Mr. Bharath Raman ABC Agro Bio Car, Dharmapuri (TN).
18.	Dr. J. Vinod Lakkappan DNA Center, Bengaluru.
19.	Dr. M.K. Sateesh Bangalore University
20.	Dr. Ramachandra University of Mysore, Mysore
21.	Dr. V.K. Tripathi Ozone Pharmaceuticals, New Delhi.
22.	Dr. U.V. Babu Himalaya Drug Company, Bengaluru.
23.	Dr. Ganesh Sambasivam Co-founder, Anthem Biosciences, Bengaluru
24.	Dr. Jayashree Aiyar Jubliant Biosys, Bengaluru.
25.	Dr. C.N. Manoj, M.D Pelican Biotech and Chemical Labs Private Ltd, Alleppey, Kerala.
26.	Prof. T. Pullaiah Sri Krishnadevaraya University Ananthapur.
27.	Dr. V. Krishna Kuvempu University, Shimoga
28.	Dr. Raaja Sab Department of Botany, Gulbarga University
29.	Dr. VidyaSagar Dept. of Botany, Gulbarga University
30.	Mr. Anand and Mr. Vinay Carl Zeis, Bengaluru
31.	Prof. Vasudev Department of Bioscience, Hemangotri, University of Mysore, Hassan
32.	Mr. Riaz Ahmed Health Care Global Hospitals
33.	Dr. Shyam Kumar Professor, Karnataka University, Darward
34.	Mr. Riaz Ahmed Narayana Hrudayalaya
35.	Dr. K.N. C. Murthy Ramaiah Medical College, Bengaluru
36.	Dr. Preetha Tilak St. Johns Medical College Hospital, Bengaluru
37.	Dr. M.S. Sheshashayee University of Agricultural Sciences, Bengaluru
38.	Mr. Satyabalan Murugesan and Mr. Vivek Theramyt Novobiologics Pvt Ltd, Bengaluru
39.	Mr. Riaz A Medgenome Technogies, Bengaluru

40.	Dr. M. A. Deepa Department of Botany, Government Arts College for Men, Krishnagiri
41.	Mr. Sushanth Shekar Jaya agro foods, Bengaluru.
42.	Ms. Divya Mourya Bonsai Maker. Bengaluru
43.	Dr. T. Gouthaman Department of Botany, Government Arts College for Men, Krishnagiri
44.	Ms. Prity Sharma Daily Dump Organization, Bengaluru

**25. Seminars/ Conferences/Workshops organized & the source of funding:**

Sl. No.	Seminars/ Conferences/Workshops	Funding	Year
1.	Entrepreneurship Development Program	The Oxford Biotechnologist's society, Bengaluru	2016
2.	Hands on training in modern biotechnology	The Oxford Biotechnologist's Society, Bengaluru	2016
3.	7th Annual KSTA National Conference - Science, Technology & Productization – A means for Growth	KSTA, GoK	2015
4.	Hands on training in modern biotechnology	The Oxford Biotechnologist's Society, Bengaluru	2015
5.	rDNA technology	The Oxford Biotechnologist's Society, Bengaluru.	2015
6.	Advances in <i>In-vitro</i> Cell culture and Functional Applications	Department of Biotechnology (DBT), New Delhi.	2015
7.	National Conference on 'Beyond the frontiers in Science and Technology'	KSTA and Industrial partners	2014
8.	Research Proposal Writing	Department of Science and Technology (DST), New Delhi.	2014
9.	Faculty Development Program and Special lecture on 'Immuno Molecular Diagnostics'	VGST, Govt. of Karnataka	2013
10.	National Conference on 'Bioactive Compounds and Therapeutics'	Industry Partners	2012
11.	A Seminar on 'Aligning with the needs of the industry'	Anthem Biosciences, Bengaluru	2011
12.	Lecture series on 'Advanced Biotechnology'	Management	2011

**International:**

Sl. No.	Seminars/ Conferences/Workshops	Funding	Year
1.	Conference on "Importance of Nutrition"	The Oxford Biotechnologist's Society, Bangalore.	2015

2.	Conference on “Biology of Brain tumor”	The Oxford Biotechnologist’s Society, Bangalore.	2013
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**26. Student profile course wise:**

Name of the Course/program (refer question no. 4)	Applications received	Selected	Enrolled		Pass percentage
			*M	*F	
M.Sc., Biotechnology 2010-2012-Batch	50	45	20	25	95.50%
M.Sc., Biotechnology 2011-2013-Batch	35	30	10	20	96.66%
M.Sc., Biotechnology 2012-2014-Batch	36	35	13	22	100%
M.Sc., Biotechnology 2013-2015-Batch	53	47	17	30	92.85%
M.Sc., Biotechnology 2014-2016-Batch	35	28	6	22	100%
M.Sc., Biotechnology 2015-2017-Batch	40	31	10	21	90.32%
M.Sc., Biotechnology 2016-2018-Batch	60	48	15	33	Results awaited
B.Sc 2011-2012	40	35	13	22	82.00%
B.Sc 2012-2013	45	41	16	25	76.33%
B.Sc 2013-2014	40	36	15	21	68.75%
B.Sc 2014-2015	40	38	19	19	70.83%
B.Sc 2015-2016	52	49	26	23	Results awaited
B.Sc 2016-2017	174	167	63	104	Results awaited
P.G.Diploma in Cellular & Molecular Diagnostics 2011 – 2012	32	11	02	11	100%
P.G.Diploma in Cellular & Molecular Diagnostics 2012 – 2013	36	14	05	09	93%
P.G.Diploma in Cellular & Molecular Diagnostics 2013 – 2014	38	14	07	07	100%
P.G.Diploma in Cellular & Molecular Diagnostics 2014 – 2015	40	17	06	11	100%
P.G.Diploma in Cellular & Molecular Diagnostics 2015 – 2016	45	23	02	21	87%

\*M = Male \*F = Female



## 27. Diversity of Student

Name of the Course	% of students from the same State	% of students from other States	% of students from abroad
M.Sc., 2011-2012	40	60	Nil
M.Sc., 2012-2013	25.71	70.29	4.0
M.Sc., 2013-2014	50	50	Nil
M.Sc., 2014 -2015	60.7	39.3	Nil
M.Sc., 2015 -2016	45.1	52.8	2.0
M.Sc., 2016 -2017	20.92	77.0	2.08
B.Sc., 2011-2012	42.5	57.5	Nil
B.Sc., 2012-2013	35.2	64.8	Nil
B.Sc., 2013-2014	44.7	55.3	Nil
B.Sc., 2014-2015	32.4	67.5	Nil
B.Sc., 2015-2016	42.8	57.2	Nil
B.Sc., 2016-2017	41.9	49.7	2.3
P.G.Diploma in Cellular & Molecular Diagnostics 2011 – 2012	12	88	Nil
P.G.Diploma in Cellular & Molecular Diagnostics 2012 – 2013	14	86	Nil
P.G.Diploma in Cellular & Molecular Diagnostics 2013 – 2014	14	86	Nil
P.G.Diploma in Cellular & Molecular Diagnostics 2014 – 2015	12	88	Nil
P.G.Diploma in Cellular & Molecular Diagnostics 2015 – 2016	10	90	Nil

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

Sl. No.	Details	Number of students
1	CSIR-NET	02
2	GATE	02
3	DBT-JRF	01
4	BCIL	15

## 29. Student progression

Student progression	Against % enrolled
UG to PG	50
PG to M.Phil.	5
PG to Ph.D.	10-20
Ph.D. to Post-Doctoral	Nil

Employed	
• Campus selection	30
• Other than campus recruitment	50(UG & PG)
Entrepreneurship/Self-employment	10-20

### 30. Details of Infrastructural facilities

a) **Library:** Books in Department Library - 112

b) **Internet facilities for Staff & Students:**

- Computers in the Department with Internet facility - 06
- Common Computer lab with 557 computers

c) **Class rooms with ICT facility:** 01

d) **Laboratories:**

1. Molecular Biology lab.
2. Plant and Animal Biotechnology lab.
3. Cell biology and Immunology lab.
4. Biochemistry and Microbiology lab.
5. BTFS lab with central instrumentation facility
6. Plant Tissue Culture Facility
7. Research Lab
8. Animal cell culture facility/Clean Room

The Department is equipped with following equipments:

Sl. No.	Name of the equipment	Quantity
1.	Gradient PCR	01
2.	Gel documentation System	01
3.	ELISA reader	01
4.	Lyophilizer	01
5.	Flourescent Microscope	01
6.	CO <sub>2</sub> incubator	01
7.	Millipore water purification system	01
8.	Biosafety Cabinet	01
9.	Refrigerated micro centrifuge	02
10.	Refrigerated centrifuge with interchangeable rotors	03
11.	Vertical deep freezer	01
12.	Orbital Shaking Incubator	02
13.	Circulating water bath	01
14.	BOD Incubator	01
15.	Rotary evaporator	01
16.	Deep Freezer (-20 °C)	01
17.	Deep Freezer (-80 °C)	01
18.	UV Spectrophotometer	02
19.	Digital Electronic Balance	04
20.	Inverted microscope	01

21.	Stereo-microscope	01
22.	Orbital shaker	01
23.	Double door Refrigerator	01
24.	Nanodrop spectrophotometer	01
25.	Electroporator	01

**31. Number of students receiving financial assistance from College, University, government or other agencies:**

Sl. No.	Year	Course	No. of Students	Funding Agencies	Sanctioned Amount ₹
1	2011-2012	PG Diploma course in Cellular and Molecular Diagnostics	11	DBT, New Delhi	55,000
2	2012-2013		14		70,000
3	2013-2014		14		70,000
4	2014-2015		17		1,70,000
5	2015-2016		24		2,40,000
6	2011-2016	M.Sc., (Backward Class)	10	Post metric scholarship Social Welfare Department, GoK	10000 - 48000/- annum/ per student (fee concession)
7	2011-2016	B.Sc., (Backward Class)	04		8000-20000/- per annum / student
8	2014-2016	B.Sc., (Bc Gt Bt)	01	Tibetan Children's village Scholarship	50,000/- per annum for 3 years

**32. Details on student enrichment programs (special lectures / workshops /seminar) with external experts:**

Title of enrichment programs	Name of experts	Date
<b>Workshop on Karyotyping and chromosomal identification techniques with case studies</b>	Mr. Riaz A Medgenome technologies	24/02/16
<b>Promise of Stem cells for degenerative disorders</b>	Dr. SudhaWarrier Manipal Institute of Regenerative medicine	5/03/16
<b>Intellectual property Right</b>	Mr. SongataMurmu, Assistant Manager, IPR, Aditya Birla group	12/03/16
<b>Project Management</b>	Mr. Ravi Kshirsagar, Head, Project Management, Strides Acrolab	12/03/16
<b>Entrepreneurship Development Program</b>	Dr .Jitendra Kumar Managing director,Bengaluru Bioinnovation centre dept IT,BT and S&T Govt Karnataka.	18/11/16 & 19/11/16
	Dr.M.A.Deepa Dept of Botany Govt College Krishnagiri.	

	Mr.Sushanth Shekar Jaya agro Foods Bengaluru.	
	Dr T Gouthman Dept of Botany Govt College Krishnagiri	
<b>Chromosomal Diagnostics</b>	Mr. Riaz Ahmed Narayana Hrudayalaya	17/01/15
<b>Molecular Diagnostics: prospects and problems</b>	Dr. K.N. C. Murthy Ramaiah Medical College	20/01/15
<b>Workshop on FISH</b>	Mr. Anand & Mr. Vinay, Carl zeis	30/01/15
<b>Chromosomal aberrations in congenital disorders</b>	Dr. PreethaTilak St. Johns Medical College Hospital	25/02/15
<b>Biopharmaceutical- An overview and analytics in Biopharmaceuticals</b>	Mr. SatyabalanMurugesan and Mr. Vivek Theramyt NovobiologicsPvt Ltd	23/04/15
<b>IPR and Bioethics in Biotechnology</b>	Dr. Vasudeva Rao, Vice-President, Agri-technology, Metahelix	27/04/15
<b>Sex determination and differentiation</b>	Prof. Vasudev, Department of Bioscience, Hemangotri, PG center, University of mysore, Hassan	19/02/14
<b>Biotechnology Finishing School-Workshop on FISH</b>	Mr. Riaz Ahmed Health Care Global Hospitals	01/03/14
<b>Drug Delivery systems</b>	Dr. Shyam Kumar Professor, Karnataka University, Darward	29/12/14

### 33. Teaching methods adopted to improve student learning:

The Department strongly believes in holistic development of students and hence adopts various novel pedagogical techniques to enhance learning process. The various unique approaches employed among other methods include:

- **By the students for the students** – A Unique Approach to improve employability skills of students. The novelty of this workshop is final year PG students are resource persons and train the final year UG students on various advanced techniques.
- **Value added program** – Research Methodology – is conducted before the commencement of project every year to provide an insight on how to choose a research problem, defining objectives, prepare research design, record and interpret data.
- **In-house research projects** – To enhance their laboratory skills students are encouraged to take up short-term projects

- **Problem Based Learning** – A novel approach of teaching/learning strategy wherein students learn course content by solving real-world problems associated with the course material.
- **Add-on-program:** An approach to update and supplement the skill required to shape their career.
- **Enrichment programs:** To enhance their subject knowledge by providing additional information about the concept either theoretically or practically.
- **Journal Club:** Students are motivated to refer national and international journals and present in-house research articles.
- Chalk and talk
- Interactive meets
- Power Point Presentations
- Audio/visual animated presentations
- Seminars
- Assignment
- Solving Question Papers
- Industrial visits
- Remedial classes

#### **34. Participation in Institutional Social Responsibility (ISR) and Extension activities:**

The Department is pro-active in inculcating social responsibility among students and hence has initiated following extension activities:

- Has established ECO-CLUB that has conducted awareness programs viz.,
  - water conservation
  - pollution control
  - composting
  - rain water harvesting
- Has actively participated in
  - Blood donation camp
  - Eye checkup camp
  - Plantation of Medicinal plants
- Has carried out cancer awareness program in collaboration with HCG.
- Has carried out awareness program on Health and Hygiene in Harohalli village under Swach Bharath Mission Program.
- Has supported paper less communication to save trees and protect the environment.

#### **35. SWOC analysis of the Department and Future plans:**

##### **Strength**

- Highly qualified faculty and efficient support staff.
- Integration of teaching and research

- High success rates in examinations
- Wide range of extension, co-curricular and extra-curricular activities
- Student feedback analyzed and used for improvement in all processes
- An environment that promotes academic freedom for active research.
  
- Increased industry institute interface.
- Significant number of publications by the faculty.
- Student-centric teaching
- Good infrastructure with spacious classrooms, well equipped labs and other facilities

### **Weakness**

- Less opportunity for faculty or student exchange programs
- Scarcity of time for the teachers to carry out research work
- Poor consultancy records

### **Opportunities**

- MOU's and tie-ups with leading organizations.
- Upgradation of ICT to impart high quality education.
- Exploring collaborative research with research institutions
- Greater participation in socially relevant programs.
- Initiate job oriented and enrichment courses.

### **Challenges**

- To streamline Ph.D. programs.
- Keeping pace with the rapid changes in higher education
- Sustaining and upgrading quality of teaching and research.
- Providing resources for marginalized students
- Implementing novel value added courses due to semester system

### **Future plans**

- To groom students to get admissions into institutes of national and international repute.
- To take up research in new emerging fields
- To publish research papers in high impact factor journals.
- Strengthening academia-industry linkages for collaborative research and consultancy activities.
- To set up Incubation Center and promote entrepreneurship



Evaluative Report of Department of Microbiology

1. Name of the Department: Microbiology

2. Year of Establishment:

- UG: 1994
- PG : 1998

3. Names of Programmes / Courses offered:

Sl. No.	Courses	Prescribed by
1	Under graduate course with Microbiology as Interdisciplinary Subject	Bangalore University
2	Post-graduation in Microbiology	
3	Ph. D. (under process)	Bangalore University

4. Names of Interdisciplinary courses and the Departments/units involved:

- B.Sc. Microbiology allied with Chemistry and Zoology (C,Z,Mb)
- B.Sc. Microbiology allied with Biochemistry and Zoology (Bc,Z,Mb)
- B.Sc. Microbiology allied with Biochemistry and Genetics (Bc,Gt,Mb)

**UG – soft core papers**

- Environmental Science (EVS)
- Banking and Finance
- French
- Capital market
- German
- Indian Constitution
- Culture, Diversity and Society
- Computer applications and Information technology
- Entrepreneurship and Innovation
- Life skills
- Fine Arts
- Performing Arts
- Community Work
- Personality Development and Leadership

**PG – Open Elective papers**

- Management Perspectives
- Media and Society
- Fashion and Apparel Design
- Write it Right
- Social movement and action
- Finance and banking



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

Courses	Nature of the programme
Undergraduate (B.Sc) & Postgraduate (M.Sc)	CBCS based semester scheme effective from the academic year 2014-15 onwards

6. Participation of the Department in the courses offered by other Departments:

Sl. No.	Department	Subject	Semester	Year
1	All PG	Applied Biotechnology (Open Elective)	PG-III semester	2015
2	B.A.	Science and Society Soft core	UG-III semester	2015 onwards
3	The Oxford College of Science	Fine arts and performing arts	UG level	2015 onwards
4	The Oxford College of Science	Personality Development	UG level	2015 onwards
5	All UG	Environmental Science (EVS) paper	UG- I semester	2014 onwards
6	Genetics	Molecular Biology	PG – II Semester	2011 onwards

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

Sl. No.	Course type	Institution under collaboration	Deliverables
1	Add-on program for M.Sc. students	Biotechnika	Preparation for CSIR-NET/JRF
2	Add-on program for M.Sc. students	RASA Lifesciences	CADD & MMD

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

9. Number of Teaching posts

	Sanctioned	Filled
Professors	01	01
Associate Professors	02	02
Assistant Professors	06	06

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

Sl. No	Name of the faculty	Qualification	Designation	Specialization	Years of Experience	No. of Ph.D. guided – last 4 yrs.
1	Dr.Bharathi S	Ph.D.	Professor & Head	Food Microbiology	20	2(guiding)
2	Dr. Yogesh B.J	Ph.D. NET	Associate Professor	Environmental Microbiology	14	Nil

3	Dr. Pramod. T	Ph.D.	Associate Professor	Industrial Microbiology	16	Nil
4	Mr. Prajeesh P	M.Sc, M.Phil	Assistant Professor	General Microbiology	12	Nil
5	Ms. Deepthi Varier	M.Sc., B. Ed.	Assistant Professor	General Microbiology	07	Nil
6	Ms. Asha Ninan	M.Sc.,	Assistant Professor	General Microbiology	09	Nil
7	Ms. Vienna	M.Sc.,	Assistant Professor	General Microbiology	08	Nil
8	Ms. Deepika	M.Sc.	Assistant Professor	General Microbiology	9 months	Nil
9	Mr. Arkajit Ganguly	M.Sc.	Assistant Professor	General Microbiology	10	Nil

### 11. List of senior visiting faculty

Sl. No.	Name of the visiting faculty
1	Dr. Marimuthu, Senior Statistician, NIMHANS, Bangalore
2	Ms. Anitha Upadhyaya, South Asia regional Manager, Alltech Biotech Pvt.ltd
3	Dr. Chandrasekar, Retd. Professor, Dept. of Botany, GKVK, UAS, Bangalore
4	Mr. Manigandan N, Regional Officer, Tata Consultancy Services

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

### 13. Student -Teacher Ratio:

Course	2012-2013		2013-2014		2014-2015		2015-2016		2016-2017	
	Theory	Practical	Theory	Practical	Theory	Practical	Theory	Practical	Theory	Practical
UG	11:1	12:1	12:1	20:1	15:1	10:1	16:1	15:1	20:1	20:1
PG	10:1	5:1	11:1	6:1	14:1	6:1	11:1	6:1	10:1	6:1

### 14. Number of academic support staff (technical): sanctioned and filled

	Sanctioned	Filled
Technical Staff	1	1
Lab Attenders	1	1

### 15. Qualifications of teaching faculty with DSc/ D.Litt/ Ph.D/ MPhil / PG. :

Sl. No.	Qualification	Number of faculties
1	Ph.D	3
2	M.Phil	2
3	PG	4

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

Sl. No	Name of faculty	Name of Grant	Funding agency	Amount	Sanctioned/ Applied
1	Dr. Pramod T	UGC Minor	University Grant Commission	2,40,000 /-	2,40,000 /-

**17. Departmental projects funded by DST - FIST; UGC, DBT, ICSSR, etc. and total grants received**

Nature of the Project	Duration	Title	Funding agency	Grant Sanctioned
Major Project	2016-18	DST-FIST	DST, Govt. of India	60,00,000
Minor project	2015-17	Isolation and screening of l-glutaminase producing bacterial strains from marine sources by submerged fermentation	UGC	2,40,000/-
	2013-14	In vitro and in-situ studies on microbial detoxification of plastic wastes	SMYSR, VGST, GoK	5,00,000/-
	2013-14	Isolation of plastic degrading microorganisms from dump site of bangalore and optimization of parameters for increased degradation	SPiCE VGST, GoK	30,000/-
	2012-13	Degradation of poultry waste by Keratinolytic actinomycetes isolated from poultry waste dumping site in bangalore	SPiCE VGST, GoK	30,000/-

**18. Research Centre /facility recognized by the University:**

University	Year
Bangalore University	2013 onwards

**19. Publications:**

➤ **Publications per faculty**

Sl. No.	Name of the faculty	Number of publications Peer reviewed International Journals
1	Dr. Bharathi S	16
2	Dr. Yogesh BJ	10
3	Dr. Pramod T	15
4	Mr. Sekar KV	11
5	Mr. Prajeesh P	04

6	Ms. Deepthi Varier	03
7	Ms. Asha Ninan	04

➤ **Number of publications listed in International Database:**

Sl. No.	International Database	Number of publications
1	Google Scholar	12
2	Science direct	02
3	Cross ref	01
4	Elsevier	02

➤ **Related details to publications:**

Sl. No.	Details	Numbers
1	Monographs	Nil
2	Chapter in books	Nil
3	Books Edited	Nil
4	Books with ISBN number	Nil
5	Citation index	10
6	SNIP	05
7	SJR	06
8	Impact factor	08
9	h- index	03

**20. Areas of consultancy and income generated:**

Sl. No.	Nature of Consultancy	Income generated
1	Water Quality analysis- Agara Lake	NIL
2	Research project ideas and guidance for Dental College students and Nursing students	NIL
3	Microbial culture bank. – maintenance and supply	NIL
4	Awareness on beneficial and harmful aspects of microbes to School students	NIL
5	Basics of Food microbiology to Hotel Management students	NIL
6	Board of studies – Bangalore University, St. Joseph's College	NIL
7	Board of Examiners and Question Paper Setter- Bangalore University, Sholapur University, St. Joseph's Autonomous College, Indian Academy Autonomous degree College.	NIL

**21. Faculty as members in a) National Committees b) International Committees c) Editorial Boards**

Faculty	Designation	Committees / Boards of
Dr. Bharathi S	Advisory Board member	International Journal of Comprehensive Research in Biological Sciences ISSN: 2393 8560

	Life Member	Association of Microbiologists of India
	Life Member	Indian Science Congress Association
	Member	Doctoral Committee, Karpagam University and Annamalai University
	Ph.D evaluation member	Bharathiar University, Coimbatore. Madras University, Tamil nadu
Dr. Pramod T	Editorial Board member	International Journal of Comprehensive Research in Biological Sciences ISSN: 2393 8560

## 22. Student projects

### a) Percentage of students who have done in-house projects including inter Departmental/programme:

Data given as cumulative of 5 years:

Percentage	
UG	PG
10	07

### b) Percentage of students placed for projects in organizations outside the institution i.e.in Research laboratories/Industry/ other agencies:

Data given as cumulative of 5 years:

Percentage	
UG	PG
15	93

## 23. Awards / Recognitions received by faculty and students

### Recognition received by faculty from professional bodies:

Sl. No.	Name of the faculty	Nature of recognition	Recognition agency	Year
1	Dr. Bharathi S	Research guide for M. Phil and Ph. D candidates	Karpagam University	2012 onwards
			PRIST University	
			Bharthidasan University	
2		External examiner for evaluating Ph. D thesis and conduction of public Viva voce	Bharathiar University Karpagam University Annamalai University	2015
3		BOS member	Bangalore University- Dept. of Microbiology	2015-16
	St. Joseph's Autonomous College		2014 onwards	
4	BOE chairperson	UG Microbiology; Bangalore University	2015-16	

5		Chairperson board of examination	MG University, Kottayam, Kerala	2014-16
		Paper setter		2010-13
6		Funding/grant for Project	SMYSR, VGST, GoK	2013
7		Paper setter and evaluator	St. Joseph's Autonomous College	2013 onwards
			Government science College (Autonomous)	
			Kristu Jayanthi College	
8		Dr. Pramod T	Funding/grant for Project	UGC Minor, GoI
	Research guide		PRIST University	2014 onwards
	Paper setter and evaluator		Bangalore University	2013 onwards
			CMR institutions	
			Jain University	
			Dayanand sagar	
Sholapur University				
BOE- UG member	Bangalore University	2016		
9	Mr. Prajeesh P	Paper setter and evaluator	CMR Institution	2015 onwards
			MG University, Kottayam, Kerala	2014 onwards
10	Dr. Yogesh BJ	Research guide for M.Phil candidates	Bharathidasan University	2010 onwards
		BOE – member.	Bangalore University	2014-15
		Paper setter and Evaluator	Indian Academy degree College	2016-17
			MG University, Kottayam, Kerala	2014 onwards

Recognition received by Students

Sl. No.	Year	Activity	Details
1	2016	NCC – 1 <sup>st</sup> place	Nikil Das
2		Bangalore University Rank	Amrutha Sivanandan – 3 <sup>rd</sup> Rank
	2015-16	Bangalore University Rank	Dakshitha – 4 <sup>th</sup> rank
3	2014-15	Bangalore University Rank	Priyanka Maurya – 1 <sup>st</sup> Rank
		Bangalore University Rank	Kulkarni Amol Nilendra – 2 <sup>nd</sup> Rank

		Bangalore University Rank	Praneetha D Chaphekar – 3 <sup>rd</sup> Rank
		Bangalore University Rank	Kavya VP – 5 <sup>th</sup> Rank
4	2014	CSIR-JRF	Mugdha Sharma
5	2013-14	Bangalore University Rank	Ms. Hima CS – 3 <sup>rd</sup> Rank
6	2012-13	Bangalore University Rank	Ms. Umang Ahlawat – 3 <sup>rd</sup> Rank
		Bangalore University Rank	Ms. Debjani Basu Mazumder – 5 <sup>th</sup> Rank

#### 24. List of eminent academicians and scientists / visitors to the Department

Sl. No.	Name of the Visitors, designation and affiliation
1.	Dr. N. L. Gangadhar Senior Scientist, IVRI, Bangalore
2.	Dr. Betty Daniel Professor, Dept. of Botany, St. Joseph's College, Bangalore
3.	Dr. Giridhar Upadhaya, Associate Prof. Dept. of Microbiology, KIMS, Bangalore.
4.	Dr. Meenatchiasundaram Assoc. Prof. Dept. of Microbiology, Nehru College, Coimbatore, TN
5.	Ms. Anitha Upadhaya South Asia Regional Manager, Altech Biotech
6.	Prof. Padmanabhan G Former director, IISc
7.	Dr. Deepshikha Chakravorty Faculty, Dept. of Microbiology and Cell Biology, IISc
8.	Prof. Nataraja Karaba Dept. of Crop Physiology, GKVK
9.	Prof. Saibal Chatterjee Dept. of Microbiology and Cell Biology, IISc
10.	Dr. Ravi Sundaresan Dept. of Microbiology and Cell Biology, IISc

11.	Dr. Nagendra, Prof & Head, Dept. of Biotechnology Sir MVIT College
12.	Dr. Seenappa Former member of UNICEF
13.	Dr. Harish Bhat Scientist, Center for Ecological Sciences, IISc.
14.	Dr. Aiyagiri Ramesh Associate Professor, IIT, Guwahati
15.	Dr. Jayaprakash Director, Sasya Gentech
16.	Dr. Mamatha, Curator, Next Bio, California
17.	Dr. Gopal Marathe Professor, Mysore University
18.	Dr. Pradeep Nair Sr. Scientific Manager, Biocon
19.	Dr. Manjunath R Associate Prof. Dept. of Biochem. IISc.
20.	Dr. Veerendra Kumar KIDWAI
21.	Prof. K.A.Natarajan Honorary Professor, Dept. of Metallurgy/Material Sciences, IISc
22.	Dr. Radha Kale Director, Center for Scientific Research and Advanced Learning Mount Carmel College, Bangalore
23.	Dr. Nayeem Ullah Khan Professor of Botany, St. Joseph's College, Bangalore
24.	Dr. T. V. Ramachandra Scientist, Energy and Wetlands Research group, Center for Ecological Sciences, Indian Institute of Science
25.	Dr. N. Nandini Professor, Dept. of Environmental Science, Bangalore University
26.	Dr. V. Prakash Distinguished scientist of CSIR- India and Immediate past Director of CFTRI, Mysore
27.	Dr. Satish Amarnath, Medical Director of Manipal Cure & Care
28.	Shri Badresh, Syngene



29.	Dr. V. Ravi, Professor of Neurovirology & Registrar, NIMHANS
30.	Dr. Vinod J. Lakkappan, Scientific Officer, DNA Centre, Bangalore.

**25. Seminars/ Conferences/Workshops organized & the source of funding:**

National International	Conference	Year	Source of Funding
National	7th Annual KSTA conference on Science, Technology and Productization - A means for growth at The Oxford College of science	5th& 6th Feb 2015	Karnataka Science and Technology Academy
	6th National Science Conference Jnanarjana 2K14 at The Oxford College of Science	27th& 28th Mar 2014	Self
	Faculty Development Programme - Recent Advances in Immuno Molecular Diagnostics	2013	VGST, Department of IT, BT and S & T, Govt. of Karnataka,
	National Science Day - Importance and Applications of Science with focus on issues related to science	2012	Karnataka Science and Technology Academy, Govt. of Karnataka
	National Conference on "Bioactive Compounds and Therapeutics" - Jnanarjana 2012	27th& 28th Feb 2012	Self

**26. Student profile course wise:**

Name of the course/ programme	Applications received	Selected	Enrolled		Pass percentage	
			Male	Female		
B.Sc.	2016	98	98	32	66	Result awaited
	2015	65	65	21	44	98
	2014	39	39	13	26	96
	2013	45	45	14	31	98
	2012	17	17	6	11	97
	2011	19	19	5	14	93
M.Sc.	2016	51	51	16	37	Result awaited
	2015	42	42	11	31	100
	2014	49	49	19	30	98
	2013	44	44	17	27	98
	2012	43	43	11	32	98
	2011	36	36	9	27	99

### 27. Diversity of Students

Name of the course		% of students from the same state	% of students from other States	% of students from abroad
B.Sc.	2016	39	61	1
	2015	52	48	--
	2014	38	62	--
	2013	44	56	1
	2012	67	22	11
	2011	56	44	--
M.Sc.	2016	55	45	--
	2015	48	52	--
	2014	59	41	--
	2013	36	64	--
	2012	33	66	1
	2011	5	95	--

### 28. How many students have cleared national and state competitive examinations?

Sl. No.	Year	Activity	Details
1	2014	CSIR-JRF	Mugdha Sharma

### 29. Student progression

Student progression	Against % enrolled
UG to PG	75
PG to M.Phil.	NIL
PG to Ph.D.	25
Ph.D. to Post-Doctoral	NA
Employed	60
• Campus selection	40
• Other than campus recruitment	
Entrepreneurship/ self-employment	01

### 30. Details of Infrastructural facilities

#### a. Library

Sl. No.	PARTICULARS	Total Number
1	Library books	209
2	Science journal	02
3	No. of project thesis	145
4	No. of Research thesis	16

#### b. Internet facilities for Staff & Students

Details	Number
Common computer facility with internet	557
Desktop computers (Department purpose Only) with internet facilities	05
Printers	03

c. Class rooms with ICT facility: 01

d. Laboratories and facilities

Sl. No.	Name of the Laboratory	Main Area/Dimension	Target group	Additional Area & Facilities available
1	LAB -I (Bacteriology and Mycology)	LENGTH- 40SqFT & BREADTH- 25SqFT	UG	Inoculation room and Instrumentation room.
2	LAB -II (Immuno Molecular biology)	LENGTH-40 SqFT& BREADTH-25SQFT	PG	Decontamination room, Instrumentation room, Inoculation room.
3	LAB- III (Fermentation and Bioprocess Lab)	LENGTH-40SqFT& BREADTH-33SqFT	PG	Refrigeration room, media preparation room, Decontamination room, Inoculation room and Instrumentation room.
4	LAB- IV (Research)	LENGTH- 40 SqFT& BREADTH- 13SqFT	Research lab	Microbial Culture storage room, Actinomycetes room. Instrumentation room.
5	Central stores	LENGTH – 40SqFT& BREADTH-13SqFT	--	Racks for handling and storage of chemicals and glass wares.
6	Centralized Biotechnology Finishing School Facilities			

31. Number of students receiving financial assistance from College, University, government or other agencies:

Sl. No.	Course	Source of financial assistance			
		College	University	Government	Others
1	B.Sc.	8	Nil	4	2
2	M.Sc.	Nil	Nil	10	Nil

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

**Special Lectures**

Sl. No.	Name of the Visitors, designation and affiliation	Purpose of visit	Date
1.	Dr. Betty Daniel Professor, St. Joseph's College	Invited speaker on the occasion of World Cancer Awareness day	4th Feb 2017

2.	Dr. Giridhar Upadhaya, Associate Prof. Dept. of Microbiology KIMS, Bangalore	Invited speaker on the occasion of World HIV awareness day	1st Dec 2016
3.	Dr. NL Gangadhar Senior Scientist, IVRI	Invited speaker on the occasion of World Rabies awareness day	26th Sept 2016
4..	Dr. Anitha Upadhya	Guest Lecture on Agriculture and Sustainability	2nd April 2016
6.	Dr. Meenatchi Sundaram Assoc. Prof. Dept. of Microbiology Nehru College, Coimbatore, TN	Resource person for workshop on “Techniques of viral inoculation on chick embryo”	19th Feb 2016
7.	Prof. Padmanabhan G Former director, IISc	Series of guest lecture on Pros and Cons of Genetically Modified Organisms (GMO)	3rd and 4th March 2016
	Dr. Deepshikha Chakravortty Faculty, Dept. of Microbiology and Cell Biology, IISc		
	Prof. Nataraja Karaba Dept. of Crop Physiology, GKVK		
	Prof. Saibal Chatterjee Dept. of Microbiology and Cell biology, IISc		
	Dr. Ravi Sundaresan Dept. of Microbiology and cell biology, IISc		
	Dr. Giridhar Upadhaya, Associate Prof. Dept. of Microbiology KIMS, Bangalore.	Guest speaker for Hepatitis Awareness Day and lectured on “Hepatitis and the need for creating awareness among the public”	30th August 2015
9.	Dr. Nagendra, Prof & Head, Dept. of Biotechnology Sir MVIT College	Applications of Bioinformatics	20th February 2015
10.	Mr.Chandradhish Ghosh, research Scholar JNC SAR bangalore	Lecture on Construction and Application of Nanoparticles	3rdMay 2014
11.	Dr. Seenappa Former member of UNICEF	Awareness on mosquito borne disease - Malaria	20th August 2014
12.	Dr. Harish Bhat Scientist, IISc.	Awareness on World Environmental day, a lecture on ‘Nurture Nature for your Future’	5th June 2013
13.	Dr. Aiyagiri Ramesh IIT, Guwahati	Nanotechnology in Biology – big strides with small tools	16th June 2013

14.	Dr. Jayaprakash Director, SasyaGentech.	A lecture series on 'Plant Molecular Biology and Therapeutics'	28th October 2013
15.	Dr. Mamatha, Curator, Next Bio, California		
16.	Dr. Gopal Marathe Professor, Mysore Univ.		
17.	Dr. Pradeep Nair Sr. Scientific Manager, Biocon,		
18.	Dr. Manjunath R Assoc. Prof. Dept. of Biochem. IISc.	'Is and Was in Immunology'	17th Nov 2012
19.	Mrs. Gayathri, Consultant	Guest Lecture on Environmental Concerns and waste Management	5th June2012
20.	Padmeshree Dr. V Prakash, Scientist CSIR, Past Director CFTRI Mysore	Guest speaker for FDP "Recent advances in Immuno Molecular diagnostics"	9th Jan 2013
21.	Dr. Veerendra Kumar, Surgical Oncologist KIDWAI	Guest Lecture on General Cancer Awareness	13th Feb 2013
22.	Pro. A H Rajasaab,Professor, Gulbarga University	Guest Lecture on Rain water harvesting & Management	14th march2013
23.	Dr. Chandrakanth Kelmani. Asst. Professor, Gulbarga University	Guest Lecture on Bacteriophage Therapy	22nd March 2013
24.	Dr. P Marimuthu, additional Professor,NIMHANS	Guest Lecture on SPSS	May11th 2013
25.	Dr. A.R Phani,,MD Nano RAM Technologies	Guest Lecture on Nanotechnology	16th May2013
26.	Dr. M K Satheesh, Asst Professor , Bangalore University	Guest Lecture on Ethics & Biosafety in Life Science	19th May 2013
27.	Dr. Vinod J. Lakkappan, Scientific Officer, DNA Centre, Bangalore.	Faculty Development Programme, on Recent advances in Immuno Molecular Diagnostics	11th Jan 2013
28.	Dr. Satish Amarnath, Medical Director of Manipal Cure & Care		21st Jan 2013
29.	Shri Badresh, Syngene		5th Feb 2013

30.	Dr. V. Ravi, Professor of Neurovirology & Registrar, NIMHANS		5th Feb 2013
31.	Dr. Betty Daniel, St. Josephs College	Guest Lecture on Cervical cancer & HPV	23rd Feb 2011
32	Dr. Vijayanand	Guest Lecture on Personality development programme on problem solving skills	31st March 2011
33	Prof. K.A.Natarajan Honorary Professor, Dept. of Metallurgy/Material Sciences, Indian Institute of Science	Invited Speaker on the Occasion of “Academies Lecture Workshop” spoke on “Mining and Bioremediation”	13th& 14th October 2011
34	Dr.Radha Kale Director, Center for Scientific Research and Advanced Learning Mount Carmel College, Bangalore	Invited Speaker on the Occasion of “Academies Lecture Workshop” spoke on Earthworm Biotechnology	
35	Dr. Nayeem Ullah Khan Professor of Botany, St.Joseph’s College, Bangalore	Invited Speaker on the Occasion of “Academies Lecture Workshop” spoke on Environmental Protection through Phytoremediation	
36	Dr. T. V. Ramachandra Scientist, Energy and Wetlands Research group, Center for Ecological Sciences, Indian Institute of Science	Invited Speaker on the Occasion of “Academies Lecture Workshop” spoke on Unplanned urbanization in Bangalore	
37	Dr. N. Nandini Professor, Dept. of Environmental Science, Bangalore University	Invited Speaker on the Occasion of “Academies Lecture Workshop” spoke on Environmental Issues in Bangalore Urban	
38	Dr.Harish Bhat Center for Ecological Sciences Indian Institute of Science	Invited Speaker on the Occasion of “Academies Lecture Workshop” spoke on “Biodiversity conservation-A Sustainable development”	

➤ Workshops

Sl. No.	Name of the Expert Speakers, Designation and affiliation	Topic of Workshop	Date
1	Dr. Meenatchi Sundaram Assoc. Prof. Dept. of Microbiology Nehru College, Coimbatore, TN	Viral cell culture	19th Feb 2016

2	Prof. Padmanaban G Former director, IISc	Lecture workshop on “Pros and Cons of GMO’s”	03rd Mar 2016
3	Dr. Deepshikha Chakravorty Faculty, Dept. of Microbiology and Cell Biology, IISc	Lecture workshop on “Pros and Cons of GMO’s”	03rd Mar 2016
4	Prof. Nataraja Karaba Dept. of Crop Physiology, GKVK	Lecture workshop on “Pros and Cons of GMO’s”	03rd Mar 2016
5	Prof. Saibal Chatterjee Dept. of Microbiology and Cell biology, IISc	Lecture workshop on “Pros and Cons of GMO’s”	04th Mar 2016
6	Dr. Ravi Sundaresan Dept. of Microbiology and cell biology, IISc	Lecture workshop on “Pros and Cons of GMO’s”	04th Mar 2016
7.	Mr. Manigandan, Domain Consultant, TCS	Lecture workshop on Hypothetical testing	Nov 2015
8.	Microbiology Department faculty	Workshop on Food Microbiology and food safety management for BHM students	27th Feb 2015
9.	Dr. Jereesh, NIMHANS	Lecture workshop on social Awareness	10th April 2014
10.	NIMHANS	Lecture workshop on Youth are pillars of the future	14th Oct 2013
11	Mrs. Vijayanthi, Director of Human Resource, Biocon	Career development workshop	9th Nov 2013
12.	Dr. Bharthi Sriram, Head Diagnostics Gangagen	Workshop on Primer Design and polymerase chain reaction	22nd Nov 2013
13.	Mr. Shekhar Suman, MD Biotechnika	Career opportunities in biological sciences	23rd Nov 2013

➤ **Enrichment program**

Sl. No.	Title	UG/PG	DATE
1	Wine Production	VI Sem B.Sc	6th Feb 2017
2	Mushroom Production	VI Sem B.Sc.	18th Jan 2017
3	Induction and Production of Antibodies from chicken	III Sem M.Sc.	27th Aug 2016
4	Production and Validation of Biofertilizers.	V Sem B.Sc.	04th Aug 2016
5	Computer Application	III Sem M.Sc	8th June 2013

**33. Teaching methods adopted to improve student learning:**

- Problem Based Learning
- Journal Club
- Remedial classes for academically weaker students
- Seminars for both PG and UG students every semester
- Interactive sessions and Group discussion.

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

➤ ISR

Nature of the program	Nature of the event	Date
Awareness based programs	International Ozone Day	16th September 2016
		16th September 2015
		16th September 2014
		16th September 2013
		16th September 2012
	World Rabies Day	26th September 2016
	AIDS Awareness Day	1st December 2016 1st December 2015
	Cancer Awareness Day	4th February 2017 13th February 2013
	World Environment day	5th June 2012
		5th June 2013
	Water conservation and self dependence	14th March 2013
	Youth – social responsibility and duties	14th October 2013
		10th April 2014
	World Mosquito day	20th August 2014
Hepatitis awareness day – walkathon	30th August 2012	

➤ Extension activities

- Newsletter
- Journal club

### 35. SWOC analysis of the Department and Future plans:

#### Strength

- Proactive and enthusiastic students with a strong sense of belonging to the Department.
- The Oxford Society of Microbiology for conducting various co-curricular & extracurricular activities
- Consistent academic excellence & University ranks at UG & PG level
- Active in research in terms of external funded projects from past four years in succession
- Excellent placement of PG students in reputed organizations
- Value added programmes for better student output
- More number of in-house projects & Internships
- Interactive Awareness programmes as a social responsibility
- Teaching aids for ICT enabled teaching
- Microbiology based consultancy services are offered
- A well equipped Department library for students' use



### **Weakness**

- Limited collaboration with research institutes.
- Attrition of experienced faculty.
- Insufficient support staff

### **Opportunities**

- MOU's and tie-ups with leading Expanding arena for placements
- Exploring possibility of collaborative research with global research institutions
- Improving consultancy services to generate income.

### **Challenges**

- To strengthen Ph.D. programs.
- Sustaining and upgrading quality of teaching and research.
- To attract academically strong students for PG programme
- Generation of resources for upgradation of infrastructure.
- To encourage students to take up research after post graduation

### **Future plans**

- To strengthen research by faculty & students.
- Enhance academia-industry linkages.
- To improve publications in quality journals.
- To offer job-oriented diploma courses for UG & PG students



## **Evaluative Report of the Department of Biochemistry**

- 1. Name of the Department:** Department of Biochemistry
- 2. Year of Establishment:**  
UG: 2001  
PG: 2001  
Ph. D.:2015
- 3. Names of Programmes / Courses offered:**
  - B.Sc. Biochemistry
  - M.Sc. Biochemistry
  - Ph. D.
- 4. Names of Interdisciplinary courses and the Departments/units involved:**
  - BC-GT-MB, (Biochemistry–Genetics- Microbiology)
  - BC-Z-MB, (Biochemistry–Zoology- Microbiology)
  - BC-GT-BT, (Biochemistry–Genetics- Biotechnology)

### **UG – soft core papers**

- Environmental Science (EVS)
- Banking and Finance
- French
- Capital market
- German
- Indian Constitution
- Culture, Diversity and Society
- Computer applications and Information technology
- Entrepreneurship and Innovation
- Life skills
- Fine Arts
- Performing Arts
- Community Work
- Personality Development and Leadership

### **PG – Open Elective papers**

- Management Perspectives
- Media and Society
- Fashion and Apparel Design
- Write it Right
- Social movement and action
- Finance and banking

- 5. Annual/ semester/choice based credit system (programme wise):**  
2011-2013 -UG, PG: Semester system  
2014-2016- UG & PG: Semester /choice based credit system

**6. Participation of the Department in the courses offered by other Departments:**

Sl. No	Name of the Faculty	Paper/Topics	Department	Year
1	Dr. Prakash.P	Biomolecules	Genetics	2011-2012 2012-2013
2	Dr. Prakash.P	Membrane biochemistry	Genetics	2011-2012 2012-2013
3	Mr. Nagaraju	Biomolecules and Membrane biochemistry	Genetics	2011-2012 2012-2013
4	Mr. Bhanuprakash.K. S	Immuno diagnostics	BTFS	2012-2013 2013-2014

**7. Courses in collaboration with other universities, industries, foreign institutions, etc.:** Nil

**8. Details of courses/programmes discontinued (if any) with reasons:** Nil

**9. Number of Teaching posts**

Teaching Post	Sanctioned	Filled
Professors	1	1
Associate Professors	2	2
Assistant Professors	5	5
Guest Faculty	1	1

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

Name of the Faculty	Qualification	Designation	Specialization	No. of Years of Experience	No. of Ph.D. Students guided for the last 4 years
Dr.Sangita Roy	M.Sc., Ph.D.	Professor and Head	Molecular biology	10 Years Teaching +10 Years Research	1(Pursuing)
Dr.Prakash P	M.Sc., Ph.D.	Associate professor	Enzymology	10 Years	Nil
Ms.Vijaya R	M.Sc., B.Ed.	Associate professor	General Biochemistry	19 Years	Nil
Ms.Madhukala K.L	M.Sc., B.Ed.M.Phil.	Assistant professor	General Biochemistry	13 Years	Nil
Mr.Bhanuprakash.K.S	M.Sc., B.Ed.	Assistant professor	Microbial metabolites	10 Years	Nil

Ms.Vatsalya Krupa	M.Sc., B.Ed.M.Phil.	Assistant professor	General Biochemistry	12 Years	Nil
Ms.Sudarsana Ramanatha	M.Sc. M.Tech	Assistant professor	Physiology and Medical Biochemistry	2.5 Years	Nil
Ms.Deepa Kumari	M.Sc., B.Ed.M.Phil.	Assistant professor Part time	General Biochemistry	11 Years	Nil
Mr.Umesh HR	M.Sc., M.Phil, PGDBI NET CSIR	Assistant professor	Biochemistry	14Years	Nil

### 11. List of senior visiting faculty:

SI No	Name of the faculty	Topics Taught
1	Dr. Sushil Midhya MLA College	Bioinformatics and research methodology
2	Dr. GopalKrishna Marathe Mysore University	Enzymology
3	Dr. Manohar Sinda Tumkur University	Mass spectroscopy
4	Dr. Karegar, Bangalore University	Plant Secondary metabolites
5	Dr. Pradeep Nair, Biocon Ind Ltd	Cancer Cell Progression and Diagnosis by biomarkers
6	Dr. Uma Sinha Dutta, GE Health Care	Research on Small molecules
7	Dr. Subash Banerjee, Mark Millipore	Downstream Processing
8	Dr. Partha Hazre, Biocon Ind Ltd	Insulin and its bio analogues
9	Dr. Ravi Krishna, Vasan Eye Care Hospital	Glaucoma and diabetes
10	Dr. Nagaraju , Tumkur University	Membrane transport

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

- 2013-14 - 25% paper BC404 bioinformatics and research methodology
- 2014 - 15 - 50% paper BC104 physiology

### 13. Student -Teacher Ratio:

Course	2012-2013		2013-2014		2014-2015		2015-2016		2016-2017	
	Theory	Practical	Theory	Practical	Theory	Practical	Theory	Practical	Theory	Practical
<b>UG</b>	30:1	25:1	30:1	25:1	30:1	25:1	30:1	25:1	30:1	25:1
<b>PG</b>	8:1	10:1	7:1	10:1	7:1	10:1	9:1	10:1	7:1	10:1

**14. Number of academic support staff (technical): sanctioned and filled:**

Technical staff (Technician) – Sanctioned: 01, Filled: 01

Support staff (Attender) - Sanctioned: 01, Filled: 01

**15. Qualifications of teaching faculty with DSc/ D.Litt/ Ph.D/ Mphil / PG.:**

S No	Qualifications	No
1	Ph.D.	2
2	M.Phil.	4
3	M.Sc.	3

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

Name of Faculty	Funding agency	Grants received
Dr. Prakash.P	UGC-MINOR, New Delhi	1.5 Lakhs

**17. Departmental projects funded by DST - FIST; UGC, DBT, ICSSR, etc. and total grants received**

S No	Funding Agencies Ongoing and in house Project	Title	Amount in ₹	Year
1	DST, New Delhi, Govt of India	FIST Project	60 Lakh	2017
2	UGC, Minor Project	Utilization of agro waste- jackfruit peel (rind) and corn husk by cellulase produced from the bacillus sp	1.5 Lakh	2016
3	Vision Group on Science and Technology Government of Karnataka, Under SPiCE Project	Project Title: Couroupita guianensis Flower Extract (Nagalingapushpa): A Potential Natural Remedies for Dental Caries	0.3 Lakhs	2013-14 Completed
4	Vision Group on Science and Technology Government of Karnataka	Biochemical alteration in Amaranthustricolour on Aluminium stress	20 Lakh	2011-2013 Completed
5	In House Project	Biochemical changes during salt stress in ground nut (Archishypogaea. L)	0.25 Lakh	2011 Completed

6	Vision Group on Science and Technology Government of Karnataka, Under SPiCE Project	Utilization of agro waste Jackfruit peel (rind) by the Bacillus sp, for the production of crude mannanase.	0.3 Lakhs	2011-2012 Completed
7	In House Project	Comparative study on antioxidant and anti inflammatory properties of three coloured varieties of Capsicum annum.	0.25 Lakh	2012-13 Completed
8	In House Project	Production and characterization of wine from Indian Spinach fruit	0.25 Lakh	2014-ongoing
9	In House Project	A comparative account of inorganic constituents (Sodium, Potassium, magnesium, Iron, Manganese) in different varieties of Jaggery	0.25 Lakh	2014-ongoing

**18. Research Centre /facility recognized by the University:**

Department of Biochemistry Recognized by Bangalore University 2015

**19. Publications:**

Sl. No.	Name	Publications per faculty
1	Dr. Sangita Roy	15
2	Dr.Prakash.P	05
3	Mrs.Vijaya.R	01
4	Mr.Bhanuprakash.K.S	02
5	Mrs.Vatsalya Krupa	01
6	Mr.Umesh HR	05

Sl. No.	Details	Numbers
1	Number of papers published in peer reviewed journals (national /international) by faculty and students (last four years):	10
2	Number of publications listed in International Database	04
3	Monographs	Nil
4	Chapter in Books	2
5	Books Edited	09
6	Books with ISBN/ISSN numbers with details of publishers	Nil
7	Citation Index	12
8	SNIP	Nil
9	SJR	Nil
10	Impact factor	3-4
11	h-index	Nil

**20. Areas of consultancy and income generated:**

- The Department has helped the MDS students of The Oxford Dental College for their project related experimental setup and instrumentation techniques
- The Department has extended the instrumentation facility for organizing scientific workshops arranged in the College by other Department

The following faculty members are part of BOS or BOE committees

Sl. No.	Name of faculty	BoS/BoE membership details	Year
1	Dr.Sangita Roy	Member – BOS UG PG Program) BOE-Jain University BOE-MLA College	2014-2015 onwards  2013 onwards 2016 onwards
2	Mrs.Vijaya.R	Member, BOE in Biochemistry, Bangalore University Member-BoE in Biochemistry MLA(Autonomous), Bangalore	2016 onwards  2016 onwards
3	Mrs.Madhukala	Member-BOE in Biochemistry MLA(Autonomous), Bangalore	2016 onwards
4	Mr.Umesh HR	Member – BOS UG PG Program Jyothi Nivas Autonomous College	2015

**21. Faculty as members in a) National Committees b) International Committees c) Editorial Boards**

S.No	Name	National	International	Editorial Boards
1	Dr.Sangita Roy	Life Member of SBC(Society of Biological Chemist)	-	Molecular Cancer Research
2	Mr. BhanuPrakash	Life Member of SBC(Society of Biological Chemist)	-	-

**22. Student projects**

**a) Percentage of students who have done in-house projects including inter Departmental/programme:**

S No	Year	%
1	2011-12	10
2	2012-13	10
3	2013-14	22
4	2014-15	55
5	2015-16	45
6	2016-17	35



**b) Percentage of students placed for projects in organizations outside the institution i.e.in Research laboratories/Industry/ other agencies:**

B	Year	%
1	2011-12	60
2	2012-13	55
3	2013-14	65
4	2014-15	70
5	2015-16	55
6	2016-17	65

**23. Awards / Recognitions received by faculty and students:**

Sl. No	Name	Awards/ Honours	Title
1	Mrs. Madhukala	Poster presentation /Second prize Held on 27-28-Feb Jnanarjana-2012 A national conference on Bioactive Compounds & Therapeutics	Comparative characterization of <i>Asclepias curassavice</i> and <i>Euphorbia resinifera</i> latex, role in blood coagulation.
2	Dr. Sangita Roy and Mr. Bhanu Prakash	Poster presentation /Second prize Held on 21-22-March-2013, National Conference on Biotechnological approaches in Medicinal and Aromatic Plant Research	The Antimicrobial Effect of <i>Couroupita guianensis</i> Flower Extract ( <i>Nagalinga Pushpa</i> ) on Dental Carries and its potential Antioxidant Nature
3	PrakashP, Krishna Madhukar.Gand Patel Mehul K	Poster presentation /Second prize Maharani science College for Women Bengaluru 29th Sep 2015	Utilization of agro waste- jackfruit peel (rind) by the bacillus sp, 12a for the production of crude mannanase
4	Umesh HR	Poster presentation, held on 2nd-3rd Feb 2012 National Level Science conference.	Utilization of Silver Nano particle on zinc oxide as Antibacterial reagents
5	Umesh HR	Poster presentation, held on 18th -21st Dec 2014, 83rd SBC Conference	Docking studies of phytochemicals on TPPs of pathogen

**Other achievements by Faculty and Students:**

Mr.Bhanu Prakash	NET qualified, year 2011
Mr.Umesh	NET qualified, year 2011
P.Krishna Madhukar	Best outgoing student of the year 2014-2016 Class topper( B.Sc& M.Sc)
Akanksha	Class topper 2011-2013, University Rank Vth Rank

HarshaJyothi, MalabikaBera, Bhavana Murthy	Class topper 2012-2014, University Rank holder, III,IV and V.
Ritu	Class topper 2013-2015

#### 24. List of eminent academicians and scientists / visitors to the Department

Academicians and Scientists	Designation
Dr Ravi Krishna	Doctor, Vasan Eye Care Hospital
Mrs. ArunaNiranjan	Counseling consultant
Dr. Anandkant Das Senior Faculty At TIFR Bombay	Senior Faculty At TIFR Bombay
Dr. Gopal K Marathe,	Associate Professor Dept of Biochemistry Mysore University
DrPradeep Nair,	Biocon
Dr. Subashish Bondhopadhye, Mark Millipore	Mark Millipore
Dr. K. Nagasundara from Bangalore University on	Bangalore University
Dr. Ravi Krishna Kanaradi	Doctor, Vasan Eye Care Hospital
Mr. KawalKalsi (Educator and Trainer- Creative Memory and Mind Management.	Mind management trainer
Dr. ParthaHazra , Biocon India Ltd.	Scientist – Biocon
Dr. ManoharShinde	Associate Professor Dept of Biochemistry Tumkur University
Dr. Nagaraju S	Associate Professor Dept of Biochemistry Tumkur University

#### 25. Seminars/ Conferences/Workshops organized & the source of funding:

Sl. No.	Seminars/ Conferences/Workshops	Funding	Year
1	7th Annual KSTA National Conference – Science, Technology & Productization – A means for Growth	KSTA, Govt of Karnataka	2015
2	National Conference on ‘Beyond the frontiers in Science and Technology’	KSTA and Industrial partners	2014
3	Faculty Development Program and Special lecture on ‘Immuno Molecular Diagnostics’	VGST. Govt. of Karnataka	2013
4	One day Lecture series: DrPradeep Nair, Senior Scientist at Biocon, talk on “An overview of therapeutic monoclonal antibodies” Dr. Gopal K Marathe, University of Mysore, deliver a talk on “Biology of an Unusual Bioactive Phospholipid	Management funded TOCS	2013
5	PCR , A Glimpse on DNA Amplification	Eppendorf India	2013

6	National Conference on 'Bioactive Compounds and Therapeutics'	Industry Partners	2012
7	Workshop on Phytochemical extraction methods and analysis.	IKA India Pvt Ltd	05-10-2012.
8	A Seminar on 'Aligning with the needs of the industry'	Anthem Biosciences, Bangalore	2011
9	workshop and special lecture on 'NMR Bench top Spectrometer'	Cole-Parmer India	2011

**26. Student profile course wise:**

Name of the Course/programme (refer question no. 4)	Applications received	Selected	Enrolled		Pass %
			*M	*F	
M.Sc 2011-2013	30	22	07	15	38.0
M.Sc 2012-2014	52	44	23	21	77.0
M.Sc 2013-2015	45	38	20	18	47.6
M.Sc 2014-2016	35	25	12	13	73.0
M.Sc 2015-2017	25	18	6	12	Results awaited
M.Sc 2016-2018	43	38	14	24	NA
BSc, BcGtBt, BcGtMb, BcZMb- 2011-14	41	40	15	25	75.0
BSc, BcGtBt, BcGtMb, BcZMb-2012-15	45	40	18	22	80.0
BSc, BcGtBt, BcGtMb, BcZMb 2013-16	55	48	22	26	78.0
BSc, BcGtBt, BcGtMb, BcZMb2014-17	57	55	20	35	75.0
BSc, BcGtBt, BcGtMb, BcZMb2015-18	65	62	24	38	72.0
BSc, BcGtBt, BcGtMb, BcZMb2016-19	41	40	15	25	75.0

\*M = Male \*F = Female

### 27. Diversity of Students

Year	Name of the Course	% of students from the same state	% of students from other States	%of students from abroad
2011-14	BSc, BcGtBt, BcGtMb, BcZMb	28	72	-Nil-
2012-15	BSc, BcGtBt, BcGtMb, BcZMb	25	75	3
2013-16	BSc, BcGtBt, BcGtMb, BcZMb	32	68	-Nil-
2014-17	BSc, BcGtBt, BcGtMb, BcZMb	45	55	-Nil-
2015-18	BSc, BcGtBt, BcGtMb, BcZMb	35	60	-Nil-
2016 - 19	BSc, BcGtBt, BcGtMb, BcZMb	35	60	4
2011-2013	M.Sc Biochemistry	16	6	-Nil-
2012-2014	M.Sc Biochemistry	30	14	-Nil-
2013-2015	M.Sc Biochemistry	25	13	-Nil-
2014-2016	M.Sc Biochemistry	18	7	-Nil-
2015-2017	M.Sc Biochemistry	9	16	3
2016-2018	M.Sc Biochemistry	24	14	-Nil

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

S No	Year	NET/SLET
1	2011-12	01
2	2012-13	02
3	2013-14	01
4	2014-15	01
5	2015-16	-
6	2016-17	-

29. **Student progression**

Student progression	Against % enrolled
UG to PG	90
PG to M.Phil.	10
PG to Ph.D.	10
Ph.D. to Post-Doctoral	NA
Employed	
•Campus selection	30%
•Other than campus recruitment	50% (UG & PG)
Entrepreneurship/Self-employment	10%-20%

30. **Details of Infrastructural facilities**

a) **Library:** Department Library -115 Books

b) **Internet facilities for Staff & Students:** Computers with internet facility in the Department-05

Common computer facility – 557

c) **Class rooms with ICT facility:** 1

d) **Laboratories:**

Name of the Lab	Number
Research Lab	01
BC Lab –I Enzymology/Protein Chemistry	01
BC Lab –II Microbiology/Molecular Biology	01
BC Lab –III Clinical Biochemistry	01
BC Lab –IV Analytical Biochemistry	01
Centralised BTFS facility	01

31. **Number of students receiving financial assistance from College, University, government or other agencies:**

Sl. No.	Course	Source of financial assistance			
		College	University	Government	Others
1	B.Sc.	6	Nil	Nil	Nil
2	M.Sc.	Nil	Nil	17	Nil

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

Sl.No	Year	Title of the enrichment programme	In collaboration with
1	19/01/2017	Separation and characterization of proteins by SDS PAGE	Department of Biochemistry TOCS

2	24/09/2016	Health and role of Immunology, Dr.Nagaraju s	Tumkur University
3	07/04/2016	World Health Day celebration : Beat Diabetes, Dr. ParthaHazra	Biocon Ltd Bangalore
4	21/03/2016	Awareness Programme “Laboratory Safety” Dr. Debashish	Sigma Aldrich
5	19/03/2016	Biomarker Development and Mass Spectroscopy Dr. MonoharShinde	Tumkur University
6	25/09/2015	Guest Lecture on Biosimilars’ Dr. Uma Sinha Dutta, Senior Scientist	GE health care
7	14/ 03/ 2015	Guest Lecture on ‘Creative Memory – Mindsmart’	Mind Smart
8	20/09/2014	Guest Lecture Dr. Subhashish Banerjee	Mark Millipore
9	30/08/2014 and 01/09/2014	Workshop on “Measurement of Radiation by GigerMullar Counter”	Dept of Physics, TOCS
10	07/03/2014	Guest Lecture on Application of Symmetry in Chemistry’	Bangalore University
11	27/3/2014 and 28/3/2014	National Symposium on “Beyond the frontier in Science & Technology”	KSTA & Industry Partner
12	28/10/13	One day Lecture series:DrPradeep Nair, Senior Scientist at Biocon, talk on“An overview of therapeutic monoclonal antibodies” Dr. Gopal K Marathe, University of Mysore, deliver a talk on “Biology of an Unusual Bioactive Phospholipid”	Biocon India & Mysore University
13	22/5/2013	Work shop on Sandwich ELISA	Nil
14	05/02/2013 – 08/02/2013	FDP : Faculty Development programme	sponsored by VGST, Aristogene
15	08/01/2013	A Glimpse on DNA Amplification	Eppendorf India
16	27/02/2013 and 28/ 02/2013	National Science Day celebration	KSTA
17	05/10/2012	Workshop on Phytochemical extraction methods and analysis	IKA India Pvt Ltd
18	27/02/2012 and 28/ 02/2012	A national conference on Bioactive compounds & therapeutics	KSTA
19	15/11/2011	Workshop on Techniques on Column Chromatography	Aristogene
20	11/11/2011	Workshop on Bench Top NMR Spectroscopy	Col Pamer India Pvt.Ltd.
21	3/10/20011	Diabetic Retinopathy	Vasan Eye care

### 33. Teaching methods adopted to improve student learning:

#### Teacher-Centered Methods

- Class room Lecture, Assignment, Enrichment Programme, Guest Lecture, Internal Test Student-Centered Method
- Activity oriented programme, Problem based Learning (PBL), Research Project, Seminar Presentation, Educational Trip

#### Teacher-Student Interactive Method

- Quiz, Wall magazine, Journal club, Awareness Program, Mock Practical exam, Workshop
- Chalk and talk
  - Interactive meets
  - Power Point Presentations
  - Audio/visual animated presentations
  - Solving Question Papers
  - Remedial classes

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

Year	Social Responsibility/ Extension activities
25th February 2014	One Day Free Eye Camp In association with Agarwal's Eye Hospital
14 <sup>th</sup> November 2014-16	Celebration of Children's Day with Samarthana Orphan Home at HSR Layout
Since 2010 to 2016	Science Exhibition- "Biochemical Constellation"
7th April 2016	World health Day Celebration

### 35. SWOC analysis of the Department and Future plans:

#### Strength

- The teaching fraternity of the Department is one of the soul strength
- The Teaching Learning methodology and Good infrastructure with spacious well equipped labs and other facilities.
- Results in UG and PG level (above 80 % in all semesters)
- Wide range of extension, co-curricular and extra-curricular activities
- Higher percentage of the students are opting Biochemistry in their future prospective.
- Negligible dropout rate.

#### Weakness

- Lack of Collaboration with other research institutes
- Limitation of job oriented and skill development courses for the students.

### **Opportunities**

- Motivating students to become research centric and industry ready
- To introduce job oriented and skill development, self-employed courses and other emerging subjects
- To open Post Graduate classes in some selected Departments
- Research and extension activities in the field of local culture natural resources and its utilization
- Industry Linkages
- Consultancy

### **Challenges**

- Adoption and implication of Innovative Technique
- Motivating junior Staffs / students to take up research in Biochemistry
- Inspiring students to spread the knowledge of Biochemistry and its applications
- To start research activities for the development of the faculty members with available facilities in collaboration with nearby Universities and research institutes.

### **Future plans**

- Making an attempt to get financial assistance from UGC to organize certificate courses.
- Opening of job oriented and self-finance programs
- Stress on research especially in the field of Biochemistry
- To organize subject related conferences





## Evaluative Report of the Department of Genetics

**1. Name of the Department:** Department of Genetics

**2. Year of Establishment:**

UG 2001

PG 2003

**3. Names of Programmes / Courses offered :**

UG Programme: B.Sc.

PG Programme: MSc in Applied Genetics

**4. Names of Interdisciplinary courses and the Departments/units involved:**

BSc with triple majors. Interdisciplinary courses are with a combination of:

- Chemistry, Biotechnology
- Biochemistry, Biotechnology
- Microbiology, Biochemisrtry

UG – soft core papers

- Environmental Science (EVS)
- Banking and Finance
- French
- Capital market
- German
- Indian Constitution
- Culture, Diversity and Society
- Computer applications and Information technology
- Entrepreneurship and Innovation
- Life skills
- Fine Arts
- Performing Arts
- Community Work
- Personality Development and Leadership

**PG – Open Elective papers**

- Management Perspectives
- Media and Society
- Fashion and Apparel Design
- Write it Right
- Social movement and action
- Finance and banking

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

2011-13 semester system for both UG &PG

2014-16 onwards semester choice based credit system (CBCS)

**6. Participation of the Department in the courses offered by other Departments:**

Sl.No.	Courses offered	Name of the Department
1.	Bioinformatics	Microbiology, Biotechnology and Biochemistry
2.	Pedigree analysis in Human Genetics Drug delivery	Biotechnology Finishing School

3.	Science and society	The Oxford College of Arts
4.	Environmental science	The Oxford College of Science
5.	Basic Genetics as Optional Elective	Genetics

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

Sl. No.	Course type	Institution under collaboration
1	Hands on training	3i Molecular Solutions and health care, Bangalore
2	Hands on training	International stem cell service limited
3	PG Project work	1.Azymes Bio science pvt ltd.
		2. Centre for excellence, University of Mysore.
		3.Raghavendra Biotech, Bangalore
		4.GKVK ,Bangalore
4	Add-on program for M.Sc. students	RASA Lifesciences

**8. Details of courses/programmes discontinued (if any) with reasons: Nil**

**9. Number of Teaching posts**

Designation	Sanctioned	Filled
Professors	01	01
Associate Professors	02	02
Assistant Professors	06	06

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

Name	Qualification	Designation	Specialization	No. of Years of Experience	No. of Ph.D. Students guided for the last 4 years
Dr. Bharathi S.	MSc, PhD	Professor and HOD	Food Microbiology	20	2(guiding )
Mrs Pavana Kamath P.	MSc, M.Phil, SLET	Associate Professor	Cytogenetics	14	Nil
Mrs Raji Sukumar	MSc, M.Phil, NET	Associate Professor	General	14.5	Nil
Dr. Arpita Kundu	MSc, PhD	Assistant Professor	General	6.8	Nil
Ms Kriti A.	MSc	Assistant Professor	General	3.4	Nil
Dr. Ashok Kumar	MSc, PhD	Assistant Professor	General	06	Nil
Dr. Deepa Gopinath	MSc, M.Phil, Ph.D, NET (CSIR, ICAR)	Assistant Professor	Genetics and Plant Breeding	6.7	Nil

Ms. Prerana	MSc	Assistant Professor	General	6 months	Nil
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**11. List of senior visiting faculty**

SL.NO.	Name of the visiting Faculty	Designation
1.	Dr. M.G. Venkatesh	Former HOD
2	Dr. Geetha Vishwanathan	Professor, Dept. of Zoology
3	Mrs .Mari Selvi	Former HOD
4.	Mr. Pranesh	Assistant Professor

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

**13. Student -Teacher Ratio:**

Course	2012-2013		2013-2014		2014-2015		2015-2016		2016-2017	
	Theory	Practical	Theory	Practical	Theory	Practical	Theory	Practical	Theory	Practical
<b>UG</b>	8:1	21:1	24:1	16:1	26:1	16:1	22:1	22:1	8:1	12:1
<b>PG</b>	2:1	7:1	2:1	8:1	2:1	6:1	2:1	12:1	2:1	12:1

**14. Number of academic support staff (technical): sanctioned and filled**

Sl. No	Position	Sanctioned	Filled
1	Lab Technician	1	0
2	Lab.Attender	2	1

**15. Qualifications of teaching faculty with DSc/ D.Litt/ Ph.D/ MPhil / PG. :**

S.No.	Qualifications	No. of teaching faculty
1	Ph.D	03
2	MPhil	02
3	M.Sc with NET/ SLET	03
4	M.Sc	03

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

**17. Departmental projects funded by DST - FIST; UGC, DBT, ICSSR, etc. and total grants received**

Sl.no.	Name of the faculty	Funding agency	Grants received in ₹
1	Dr. Sam Balu	SPiCE-VGST	30000

2.	Dr.Bharathi S.	VGST-SMYSR	500000
3.	In house projects	Self funded	25000
4.	Not Applicable	DST FIST	6000000

**18. Research Centre /facility recognized by the University: Nil**

**19. Publications:**

SL.No.	Name of the Faculty	No. of Publications
1	Dr Bharathi S	16
2	Mrs Raji Sukumar	01
3	Dr. Arpita Kundu	08
4	Dr. Deepa Gopinath	06

Sl. No.	Details	Numbers
1	Number of papers published in peer reviewed journals (national /international) by faculty and students	17
2	Number of publications listed in International Database	31
3	Monographs	Nil
4	Chapter in Books	Nil
5	Books Edited	Nil
6	Books with ISBN/ISSN numbers with details of publishers	Nil
7	Citation Index	06
8	SNIP	01
9	SJR	Nil
10	Impact factor	08
11	h-index	Nil

**20. Areas of consultancy and income generated:**

S. No.	Name of the Faculty	Consultancy
1.	Dr. Bharathi S.	BOE chairperson, UG Microbiology; Bangalore University
		BOS member, Bangalore University- Dept. of Microbiology
		BOS member, St. Joseph's Autonomous College
		Chairperson BOE, MG University, Kottayam, Kerala
2	Ms.Pavana Kamath P.	BOE member

**21. Faculty as members in National/International Committees/Editorial Board**

Faculty	Designation	Committees / Boards of
Dr. Bharathi S	Advisory Board member	International Journal of Comprehensive Research in Biological Sciences ISSN: 2393 8560
	Life Member	Association of Microbiologists of India
	Life Member	Indian Science Congress Association
	Member	Doctoral Committee, Karpagam University and Annamalai University

	Ph.D evaluation member	Bharathiar University, Coimbatore.
		Madras University, Tamil nadu

## 22. Student projects

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

### UG

Year	% of projects completed
2010-13	100
2011-14	100
2012-15	100
2013-16	100
2014- 17	100 (Ongoing)

### PG

Year	% of projects completed
2011-13	100
2012-14	80
2013-15	Nil
2014-16	100

b)Percentage of students placed for projects in organizations outside the institution

### PG

Year	% of projects completed
2015-2017	100(ongoing)

## 23. Awards / Recognitions received by faculty and students

S No	Name of the Student	Name of the Award	Year Of Award
1	Harish kumar T	Best out going student award	2016
2	Chinta Siddarthan	CSIR-NET	2015
3	Prerana Chakraborty	Best out going student award	2015
4	Harish kumar T	I Prize in poster presentation 8 <sup>th</sup> KSTA conference	2015
5	Nikhil Das	1 <sup>st</sup> place in NCC	2015
6	Iyer Gayatri Rangarajan	CSIR-NET	2015
7	Sanoj Naik	CSIR-NET	2014
8	Iyer Gayatri Rangarajan	Inspire fellowship	2014
9	Iyer Gayatri Rangarajan	Best out going student award	2014
10	Chinta Siddarthan	Best out going student award	2013
11	Chinta Siddarthan	Inspire fellowship	2013

Sl no	Name of the faculty	Name of the award	Year of award
1	Ms.Raji Sukumar	I Prize in poster presentation 8th KSTA conference	2015

2	Dr. Bharathi S	Chairperson board of examination, paper setter MG University Kerala	2014 and 2015
3	Dr. Bharathi S	SMYSR by VGST, GoK	2012-13
4	Dr. Deepa Gopinath	Best poster award at 6th International food convention (IFCON), Mysore	2008

#### 24. List of eminent academicians and scientists / visitors to the Department

S No	Eminent Personalities	Designation	University/Institutes
1	DrV PreethaTilak	Genetic Counselor	St John's Medical College And Research Center
2	Dr. Shoba K	Gynaeoncologist	Kidwai Memorial Institute Of Oncology
3	Marie selvi	Former HOD	Adarsh College
4	DrManoj Mojamdar	Senior Scientist	Majumdar- Shaw Cancer Center
5	DrGeetha Vishwanathan	Prof essor, Dept. of Zoology	St Joseph's College Bangalore
6	Vasanthi Palanivel	Senior Scientist	Polyclone Pvt Ltd
7	Riyaz Akthar	Senior Research Associate	Med Genome

#### 25. Seminars/ Conferences/Workshops organized & the source of funding:

Title of Workshops	Funding Agency	Date
FISH and Identification of Human chromosome	Management funded	25/2/2016
Learning the modules of protein modelling and drug designing	Management funded	26/4/2016
Lymphocyte culture and identification of human chromosomes	Management funded	7/11/2015
identification of human chromosomes and case study	Management funded	17/1/2015
Workshop on Cytogenetics technique	Management funded	2/7/14
Workshop on Diagnostic Immunology	Management funded	18/6/14
Practical workshop in developmental Biology	Management funded	13/3/14
Workshop on PTC	Management funded	14/2/14-24/2/14
Workshop on Hematology	Management funded	17/9/13
Hands on practicals in Bioinformatics	Management funded	3/2/13
Temporary Slide Preparation of Mitosis and Identification of Mitotic Stages	Management funded	19/9/2013

#### 26. Student profile course wise:

Name of the Course/programme	Applications received	Selected	Enrolled		Pass Percentage
			M	F	
B.Sc 2011-14	55	35	21	14	85
B.Sc 2012-15	40	35	13	22	90

B.Sc 2013-16	50	38	17	21	88
B.Sc 2014-17	60	50	18	32	89
B.Sc 2015-18	60	55	25	30	ongoing
B.Sc 2016-19	190	150	46	104	ongoing
M.Sc 2011-13	10	7	Nil	7	100
M.Sc 2012-14	12	9	1	8	100
M.Sc 2013-15	10	8	1	7	100
M.Sc 2014-16	10	6	4	2	100
M.Sc 2015-17	15	12	3	9	ongoing
M.Sc 2016-18	16	12	1	10	ongoing

### 27. Diversity of Students

Name of the Course	% of students from the same state	% of students from other States	% of students from abroad
B.Sc. 2011-2014	20	74	6
B.Sc. 2012-2015	20	71	6
B.Sc. 2013-2016	43	58	Nil
B.Sc. 2014-2017	34	66	Nil
B.Sc. 2015-2018	33	67	Nil
B.Sc.2016-2019	29	68	3
M.Sc Applied Genetics (2011-2013)	Nil	88	12
M.Sc Applied Genetics (2012-2014)	33	67	Nil
M.Sc Applied Genetics (2013-2015)	42	58	Nil
M.Sc Applied Genetics (2014-2016)	33	34	33
M.Sc Applied Genetics (2015-2017)	16	75	8.3
M.Sc Applied Genetics (2016-2018)	25	75	Nil

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

Sl. No	Name of the student	Year of passing NET
1	Riyaz Akter	2013
2	Pradeep	2014
3	Sanoj Kumar Naik	2013
4	Chinta Sidharthan	2014
5	Gayatri Iyer	2015



## 29. Student progression

### Student progression Against % enrolled

S.no	year (UG)	UG to PG	Year (PG)	PG to PhD.	Employed
1	2011-2014	80%	2011-2013	0.7%	85.7%
2	2012 – 2015	75%	2012 -2014	0.9%	88.8%
3	2013-2016	87%	2013-2015	0	42.5%
4	2014-2017	(in final year)	2014-2016	(Result awaiting)	0.06%

## 30.Details of Infrastructural facilities

### a) Library

No. of Books (National and International publications)	No. of practical Manual
70	08

### b) Internet facilities for Staff & Students.

The Department is provided with two computers with internet facility.

There is a common computer lab with 557 computers.

### c) Class rooms with ICT facility- 01

### d) Laboratories

Sl.No.	Names	Numbers
1.	Biochemistry/biomedical genetics lab	1
2.	RDT/ Immunogenetics lab	1
3.	Molecular biology lab	1
4.	Instrumentation Room	1
5.	Culture Room	1
6.	Store Room	1

## 31. Number of students receiving financial assistance from College, University, government or other agencies:

### Tuition fee waived for toppers

2013- 01

2014- 01

2015- 02

### Fee concession for Students

2016 – 03

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

Name of the resource person	Topic	Funding	Date
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International stem cell service limited	Hands on training on basics of Animal cell culture	Self	04/02/2017
Dr. Geetha Vishwanathan Dermatoglyphics expert	Application of dermatoglyphics in Genetics	Management	24/8/2016
P.S.Sai Krishna	Dermatoglyphics as a career	Management	24/08/2016
Mr.Riyaz Akther, Medgenome	FISH and Identification of human chromosomes	Management	25/2/2016
Dr.Shobha, Gynoncologist,Kidwai	Breast and Cervical cancer	Management	5/2/2016
Mr.Riyaz Akther, Medgenome	Lymphocyte culture and identification of human chromosomes	Management	7/11/2015
Dr. Preetha Tilak, Genetic Counsellor, St. Johns Medical College	‘Prenatal Diagnosis and Genetic counselling	Management	6/8/2015
Dr. Preetha Tilak, Genetic Counsellor, St. Johns Medical College	Chromosomal Aberration in congenital disorder	Management funded	25/2/2015
Mr.Riyaz Akther, Medgenome	identification of human chromosomes and case study	Management funded	17/1/2015
Mr.Pranesh.M.K., Research Associate, BU	Evolution of Globin Gene	Management funded	12/11/2014
Dr.Manoj Mojamdar,Chief Scientific officer Stem cell	Artificial and Bio-artificial skin	Management	8/10/2014
Vasanthi Palanivel, Polyclone Biosciences	Stem cells and its application	Management	11/9/2014
Mr.Riyaz Akter, Medgenome	Karyotyping-identification of human chromosomes and chromosomal aberrations	Management	15/2/2014
Mr.Pranesh M.K.	Evolution of globin gene	Management	1/12/2013
Dr. Geetha Vishwanathan Dermatoglyphics expert	Application of dermatoglyphics in Genetics	Management	1/10/2012
Dr.Shailaja Hitalmani, GKVK	Marker assisted Gene mapping	Management	22/11/2011

### 33. Teaching methods adopted to improve student learning:

- Remedial classes for slow learners and students with lower attendance percentage
- PBL Classes
- Journal Discussion
- Seminars
- Workshops
- Special Lectures
- Science Exhibition/Competition
- Practical Workshop

- Industrial Visits.

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

- Awareness programs on breast and cervical cancer.
- Organ donation camp

#### 35. SWOC analysis of the Department and Future plans:

##### Strength

- Well qualified, dedicated teachers with effective teaching practices.
- 50% of the faculty are NET /SLET qualified.
- Active and focused students.
- Positive working environment with excellent team spirit.
- Teaching aids for ICT enabled teaching
- Consistent academic excellence with 100% first class and many University ranks.

##### Weakness

- Lower strength in PG
- Lack of animal house facility
- Unavailability of technical support

##### Opportunity

- Clinical Research and Biomedical Genetics
- Post graduates in Applied Genetics have ample opportunities in the following fields
- Cancer diagnostics
- Molecular Biology
- Bioinformatics
- Drug designing and proteomics
- Genetic Counselling
- Cytogenetics

##### Challenge:

- Research and employability are vast abroad
- More emphasis should be given by the Department to the students for their employability within the country

##### Future plans

- Increase the number of PG admissions
- To get external funded projects and workshop
- Setting up Research centre which can cater to pursue higher education in Genetics
- Strengthen employability of students
- To conduct more certificate programs
- To arrange visits to research institutes



## Evaluative Report of the Department of Chemistry

**1. Name of the Department:** Department of chemistry

**2. Year of Establishment:** 1994

**3. Names of Programmes / Courses offered:**

M.Sc Organic Chemistry

B.Sc in:

Chemistry, Zoology, Microbiology (CZMb)

Chemistry, Genetics, Biotechnology(CGtBt)

Chemistry, Zoology, Biotechnology(CZBt)

**4. Names of Interdisciplinary courses and the Departments/units involved:**

UG – Triple major course

CGTBT - Chemistry, Genetics and Biotechnology

CZBT - Chemistry, Zoology and Biotechnology

CZMB - Chemistry, Zoology and Microbiology

UG – soft core papers

- Environmental Science (EVS)
- Banking and Finance
- French
- Capital market
- German
- Indian Constitution
- Culture, Diversity and Society
- Computer applications and Information technology
- Entrepreneurship and Innovation
- Life skills
- Fine Arts
- Performing Arts
- Community Work
- Personality Development and Leadership

PG – Open Elective papers

- Management Perspectives
- Media and Society
- Fashion and Apparel Design
- Write it Right
- Social movement and action
- Finance and banking

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

UG and PG courses

2011-14: Semester Scheme

2014 onwards : Choice based Credit System

**6. Participation of the Department in the courses offered by other Departments:**

Sl. No.	Department	Subject	Semester	Year
1.	Physics	Elementary Biophysics	PG II Semester	2014 onwards
2.	Biochemistry	Biocalorimetry and Basic Chemistry	PG-I semester	2014 onwards
3.	Arts College	Science and Society	UG-III semester	2015 onwards

**7. Courses in collaboration with other universities, industries, foreign institutions, etc.: NIL**

**8. Details of courses/programmes discontinued (if any) with reasons: NIL**

**9. Number of Teaching posts**

Designation	Sanctioned	Filled
Professors	01	Nil
Associate Professors	02	02
Assistant. Professors	06	06

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

S. No	Name of the faculty	Qualification	Designation	Experience (in years) Teaching	No. of Ph.D. Students guided for the last 4 years
1	Dr. Debarati	M.Sc., Ph.D.	Assoc. prof & Head	14	1
2	Mrs. Usha Ballakoor	M.Sc., M.Ed.,	Associate Professor	47	Nil
3	Ms. S. Akshatha	M.Sc.,	Assistant Professor	5	Nil
4	Mrs Maya Chipkar	M.Sc BEd	Assistant Professor	5.4	Nil
5	Dr A.C. Jayasree	M.Sc., Ph.D.	Assistant Professor	9 months	Nil
6	Dr T. A Jenifer	M.Sc., Ph.D.	Assistant Professor	1.5	Nil
7	Dr. Gopal Reddy	M.Sc., Ph.D.	Assistant Professor	2	Nil
8.	Mrs. U. Ragini	M.Sc, Mphil	Assistant Professor	14	Nil

**11. List of senior visiting faculty:**

Prof. K. R. Nagasundara, Central College, Bangalore University

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

Sl No.	Year	% handled
1	2015	25%
2.	2016	25%

### 13. Student -Teacher Ratio: Theory & Practical

UG

Year	Theory	Practical
2011-14	4:1	11:1
2012-15	6:1	13:1
2013-16	14:1	16:1
2014-17	9:1	14:1
2015-18	25:1	25:1
2016-19	25:1	25:1

PG

Year	Theory	Practical
2011-13	5:1	15:1
2012-14	6:1	10:1
2013-15	10:1	20:1
2014-16	5:1	10:1
2015-17	7:1	14:1
2016-18	10:1	20:1

### 14. Number of academic support staff (technical): sanctioned and filled

	Sanctioned	Filled
Technical (Lab. Asst.)	1	1
Technical (Lab. Attendant )	1	1

### 15. Qualifications of teaching faculty with DSc/ D.Litt/ Ph.D/ MPhil / PG. :

S No.	Faculty with Ph.D	Faculty pursuing Ph.D	Faculty with M.Sc
1	04	01	03

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

Name of the project	Duration Year	Name of the funding agency	Total Grant sanctioned
Cu-catalysed direct and site selective arylation under mild conditions	2 yrs, 2015-2017	UGC -minor project	Rs. 2,85,000/-

### 17. Departmental projects funded by DST - FIST; UGC, DBT, ICSSR, etc. and total grants received

Sl.No	Title of the project	Period	Funding Agency	Amount Sanctioned INR
1.	DST FIST	2016-18	DST, Govt. of India	60,00,000

18. Research Centre /facility recognized by the University: NIL

19. Publications:

a) Publication per faculty

Name	No. of Papers	National No. of Papers International	Monographs	Chapter in Books	Books Edited	Books with ISBN/ISSN numbers with details of publishers	Citation Index	SNIP	SJR	Impact Factor	h - index
Dr.Debarati	8	7 (Int) & 1 (national)	-	-	-	-	100	-	-	15.329	-
Dr.V.Venkatesh	8	8	-	-	-	-	70	-	-	14.23	3 . 2
DrA.C.Jayasree	5	5	-	-	-	ISBN: 978-81-907519-2-6	-	-	-	-	-
Dr T. A Jenifer	5	5	-	-	-	-	24	-	-	7.37	3
Dr. Gopal Reddy N B	4	-	-	-	-	-	-	-	-	-	-

20. Areas of consultancy and income generated: Nil

21. Faculty as members in National and International Committees c) Editorial Boards

Dr. Jenifer T. A. (Life member in ISCA)

Mrs R. Devika Bhai (Life member in ISCA)

22. Student projects

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

Year	Class	In-house
2011-2012	MSc Chemistry	44.44
2012-2013	MSc Chemistry	20
2013-2014	MSc Chemistry	80
2014-2015	MSc Chemistry	59.44



2015-2016	MSc Chemistry	63.44
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**b) Percentage of students placed for projects in organizations outside the institution i.e.in Research laboratories/Industry/ other agencies**

Year	Class	Industrial
2011-2012	MSc Chemistry	66.66
2012-2013	MSc Chemistry	80
2013-2014	MSc Chemistry	20
2014-2015	MSc Chemistry	41.66
2015-2016	MSc Chemistry	36.66

**23. Awards / Recognitions received by faculty and students**

1. Mr Pravin Pathak, the student of M.Sc chemistry secured University first rank, July 2012.
2. Mr Hameed, the student of M. Sc chemistry secured the University fourth rank, July 2013.
3. Mr Sudipta Samantha, the student of M.Sc chemistry secured the University Fifth rank, July 2015
4. Dr. Debarati, Asso. Prof & Head, has got patent for Improved process for the preparation of 1-fluoro-2,3-dialkoxybenzene and 2-fluoro-1,4 -dialkoxybenzene  
Patent No. WO2011/064789; Filled patent for green analytical technique for drug quantification

**24. List of eminent academicians and scientists / visitors to the Department**

Name	Designation
Dr Debasis Chakraborty	Principal Scientist , Sigma Aldrich, Bangalore
Dr. Sumankumar Jana	Chief Scientist at SABIC, Bangalore
Dr. Ravindra Singh	(Principal Scientist) Sigma Aldrich, Bangalore
Mr. Kawal Kalsi, Mumbai	Creative Memory trainer Mumbai
Dr. Ganga Periasamy, Bangalore University	Assistant Professor, Bangalore University

**25. Seminars/ Conferences/Workshops organized & the source of funding:**

Sl. No.	Seminars/ Conferences/Workshops	Funding	Year
1	7th Annual KSTA National Conference - Science, Technology & Productization - A means for Growth	KSTA, Govt of Karnataka	2015
2	National Conference on 'Beyond the frontiers in Science and Technology'	KSTA and Industrial partners	2014
3	National Conference on 'Bioactive Compounds and Therapeutics'	Industry Partners	2012

**26. Student profile course wise:**

Name of the Course/programme (refer question no. 4)	Applications received	Selected	Enrolled		Pass Percentage
			*M	*F	
M.Sc. 2011-2013	18	15	09	06	23.22
M.Sc. 2012-2014	25	21	12	09	20.71
M.Sc. 2013-2015	40	37	23	14	35.45
M.Sc. 2014-2016	25	22	07	15	25.62
M.Sc. 2015-2017	30	28	10	18	20.2
M.Sc. 2016-2018	40	38	13	25	Result Awaited
B.Sc 2011-2014	15	11	05	06	76.32
B.Sc 2012-2015	16	13	04	09	78.06
B.Sc 2013-2016	30	28	08	20	64.67
B.Sc 2014-2017	20	18	11	07	82.26
B.Sc 2015-2018	52	49	18	31	68
B.Sc 2016-2019	104	99	37	62	Result Awaited

\*M = Male \*F = Female

**27. Diversity of Students**

Name of the Course	% of students from the same State	% of students from other States	% of students from abroad
M.Sc. 2011-2013	12	03	Nil
M.Sc. 2012-2014	17	04	Nil
M.Sc. 2013-2015	37	09	Nil
M.Sc., 2014 -2016	18	04	Nil
M.Sc., 2015 -2017	19	09	Nil
M.Sc., 2016 -2018	25	12	01
B.Sc 2011-2014	01	10	Nil
B.Sc 2012-2015	09	04	Nil
B.Sc 2013-2016	19	09	Nil
B.Sc 2014-2017	04	14	Nil
B.Sc 2015-2018	27	21	01
B.Sc 2016-2019	37	40	02

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

Mr. Pravin Pathak cleared NET Exam in 2012

### 29. Student progression

Student progression	2011-2013	2012-2014	2013-2015	2014-2016
UG to PG	8%	12%	9%	14%
PG to M.Phil.	Nil	Nil	Nil	Nil
PG to Ph.D.	Nil	11%	Nil	9%
Ph.D. to Post-Doctoral	NA	NA	NA	NA
Employed				
Campus selection	16%	-	-	10%
Other than campus recruitment	30%	50%	60%	30%

### 30. Details of Infrastructural facilities

a) Library: 70 books

b) Internet facilities for Staff & Students:

- Desktop computers with internet access- 2
- Common Computer lab with 557 computers

c) Class rooms with ICT facility-01

d) Laboratories-03

Sl.No.	Names	Numbers
1.	Physical lab	1
2.	Inorganic lab	1
3.	Organic lab	1
4.	Store room	1
5.	Preparation room	1

### 31. Number of students receiving financial assistance from College, University, government or other agencies:

All the SC, ST and OBC students under University quota receive financial assistance from Government

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

Name	Topic	Date
Dr Debasis Chakraborty, Principal Scientist, Sigma Aldrich, Bangalore	Recent Advances in Green Chemistry	9 th Nov, 2012
Dr. Sumankumar Jana, Chief Scientist at SABIC, Bangalore	Heterogeneous Catalysis: From Fundamental to Commercial Application	25th May, 2013
Dr. Debasis Chakraborty (Principal Scientist), Dr. Ravindra Singh ( Principal Scientist) Sigma Aldrich, Bangalore	Laboratory Safety	21st October, 2014
Mr. Kawal Kalsi Mumbai	Creative Memory –Mindsmart	14th March, 2015

Dr. Ganga Periasamy  
Bangalore University

Molecular Modelling

25th August, 2016

### 33. Teaching methods adopted to improve student learning:

- **Expert:** Similar to a coach, experts share knowledge, demonstrate their expertise, advise students and provide feedback to improve understanding and promote learning.
- **Personal model:** Incorporates blended teaching styles that match the best techniques with the appropriate learning scenarios and students in an adaptive format.
- **Facilitator:** Designs participatory learning activities and manages classroom projects while providing information and offering feedback to facilitate critical thinking.
- **Delegator:** Organizes group learning, observes students, provides consultation, and promotes interaction between groups and among individuals to achieve learning objectives.

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

NIL

### 35. SWOC analysis of the Department and Future plans:

#### Strength

- Highly qualified and dedicated faculty and efficient support staff.
- Integration of teaching and research.
- Student feedback analyzed and used for improvement in all processes
- Good infrastructural support offered to students.
- Departmental Library dedicated for students use.
- Faculties with industrial experience are helping the students to get projects and jobs in different companies.

#### Weaknesses

- Difficulty in holding experienced faculties for longer periods due to plenty of other opportunities in the field of chemistry (both industry and academic)
- Limitation of space.
- Due to the economic background of students and the lack of time available to them, difficulty in implementing many value added courses.
- Communication problems with students coming from rural areas

#### Opportunities

- As Bangalore is hub for CROs in the field of chemistry, we have better advantage for strengthening academia-industry linkages.
- Opportunity of collaborative research with research institutions

- The Department with its resources and networking can ensure students' greater participation in research oriented programs.

### **Challenges**

- To organize Ph.D. programs.
- Sustaining and upgrading quality of teaching and research.
- Providing resources for marginalized students
- Finding the resources for additional up gradation of infrastructure.

### **Future plans:**

- To groom students to get entry into institutes of national and international importance.
- To take up research in new emerging fields.
- To strengthen the collaboration with different industries.
- More collaborative research with research institutions.



**Department of Computer Science and Applications**

**1. Name of the Department:** Department of Computer Science and Applications

**2. Year of Establishment:** UG: BCA – 2000; BSc – 1994

PG: MCA – 1995 MSc - 2010

**3. Names of Programs / Courses offered**

UG	PG
BCA	MCA
BSc	MSc

**4. Names of Interdisciplinary courses and the Departments/units involved:**

Name of the Course	Departments involved	Topic
BCA & B.Sc	Language	Soft Skill & Personality Development
	Management	Accounts and Banking & Insurance
	Life Science and Physical Science	Environmental Studies & Public Health, Social Culture and Diversity
	Law	Indian Constitution
MCA & M.Sc	MSW	Media and Society Social movement and action
	Fashion Design	Apparel Design
	Mathematics	Soft Core-Quantitative Technique
	Arts	Write it Right
	Commerce	Finance and banking

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

For all UG and PG Courses:

- 2011-2014 - Semester Based System
- 2014-2016 – Choice Based Credit System , Semester Based

**6. Participation of the Department in the courses offered by other Departments:**

Course	Department	Topic
M.Sc	Microbiology	Soft Core- Bioinformatics
M.Sc Electronics	Electronics Department	Object Oriented Programming using C++
MSW	Social Works	Computer Fundamentals, Computer Network and Internet Issues
M.Com	Commerce	Database Management System and HTML
M.Sc	Physical and Life Science	Open Elective- “Cyber Space”

**7. Collaboration with other universities, industries, foreign institutions, etc.:**

Course	Service Provided	Organization
PHP and My SQL	M.Sc , MCA	IIT Bombay
Android		
IT SECURITY		TRIAD Square Infosec Pvt. Ltd
Bigdata Analysis	M.Sc	Research Institute India Private Limited, Bangalore
Hadoop Technology	BCA	Lara Technology, Bangalore

**8. Details of courses/programmes discontinued (if any) with reasons: NIL**

**9. Number of teaching posts**

Designation	Sanctioned	Filled
Professors	01	01
Associate Professors	02	02
Assistant Professors	10	10

**10. Faculty profile with name, qualification, designation, specialization, (D.Sc./D.Litt. /Ph.D. / M. Phil. Etc.,)**

Sl. No	Name	Qualification	Designation	Experience (years)
1	Dr. Susil Kumar Sahoo	MCA, M. Phil, Ph. D	Professor	17
2	Mr. Jayapragash M.	MCA	Associate Professor	15
3	Mrs. Vinita Tapaskar	MCA, M Phil.	Associate Professor	13+1
4	Mrs. Seena Asif	MCA	Assistant Professor	7+1
5	Mrs. Sajana Balan Manian	MCA, UGC NET, JRF	Assistant Professor	8
7	Mr. Ramesh Babu	MCA	Assistant Professor	4
8	Mr. Ramakrishna Reddy	MCA, M.E	Assistant Professor	12
8	Ms. Sathya	M.Sc CS, M.Phil	Assistant Professor	7
9	Mr.Dharmendra Raju	MCA	Assistant Professor	4
10	Ms. Aiswarya Lakshmi	M.Tech (IT)	Assistant Professor	1
11	B N AMITH	MCA	Assistant Professor	6 months
12	K Kalai Selvi	M.Sc, MCA	Assistant Professor	4
13	Shubhi Srivastava	MCA	Assistant Professor	4

**11. List of senior visiting faculty**

Name of Guest Faculty	Topic	Course & Year
Ms. Senthil Vadivu	Data Structures	BCA-2013,2014,2015
Ms. Hema Sundari	Object Oriented Analysis and Design	MCA-2014,2015
Mr. Manikantan	Java	MCA-2013,2014,2015,2016
Ms. Suma S	Web Technology	MCA & MSC- 2013,2014,2015
Mr. MohanRaj	Computer Network	BCA-2014,2015

Ms. Haseena	Database Management System	BCA-2014-2015
Mr. S Harish	Accounts	BCA- 2013,2014,2015

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

Course/Semester	Year	Subject	%
BCA III Semester	2014,2015,2016	Accounts Theory & Tally Lab	4
MCA I Semester	2014,2015,2016	Accounts Theory & Tally Lab	4

**13. Student -Teacher Ratio (programme wise):**

Course	Year	Ratio	
		Theory	Practical
BCA	2012	20:1	20:1
	2013	15:1	15:1
	2014	16:1	16:1
	2015	17:1	17:1
	2016	40:1	40:1
B.Sc	2012	15:1	15:1
	2013	10:1	10:1
	2014	10:1	10:1
	2015	20:1	20:1
	2016	20:1	20:1
MCA	2012	10:1	10:1
	2013	5:1	5:1
	2014	10:1	10:1
	2015	10:1	10:1
	2016	10:1	10:1
M.Sc	2012	5:1	5:1
	2013	5:1	5:1
	2014	2:1	2:1
	2015	5:1	5:1
	2016	4:1	4:1

**14. Number of academic support staff (technical) and administrative staff; sanctioned and filled**

	Sanctioned	Filled
Technical Assistant	2	2
Attenders	1	1

**15. Qualifications of teaching faculty with DSc/ D.Litt/ Ph.D/ MPhil / PG:**

Qualification	Total Number of Facultie
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Ph. D	1
M. Phil	3
MCA	8
M. Tech	2
M.Sc	2

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

**17. Departmental projects funded by DST - FIST; UGC, DBT, ICSSR, etc. and total grants received:** NIL

**18. Research Centre /facility recognized by the University:**

Research Center approved in the year 2015-16

**19. Publications:** List of publications in Journals

Sl. No	Name of authors	Title Number of Publications
1	Dr. Susil Kumar Sahoo	7
2	Dr. Meenakumari	7
3	Jinesh V N	3

Sl. No.	Details	Numbers
1	Number of papers published in peer reviewed journals (national /international) by faculty and students (last four years):	5
2	Number of publications listed in International Database	Nil
3	Monographs	Nil
4	Chapter in Books	Nil
5	Books Edited	Nil
6	Books with ISBN/ISSN numbers with details of publishers	3
7	Citation Index	Nil
8	SNIP	Nil
9	SJR	Nil
10	Impact factor	8
11	h-index	Nil

**20.Areas of consultancy and income generated**

Sl.No	Faculty Name	Consultancy Provided
1	Mr. Jayapragash	CMRIMS (Autonomous)
		BOE Member for MCA Course
		In the Panel of Practical Examiner for CMRIMS
2	Ms. Vinita Tapaskar	CMRIMS (Autonomous)
		BOE Member for MCA Course
		In the Panel of Practical Examiner for Christ University
3	Mr. Ramesh	Guest Faculty for Sai Ram Engineering College on Oracle Certification Course
		Guest Faculty to Vidya Vahini Degree College under Tumkur University on Java Technologies

4

Ms. Seena A

In the Panel of Practical Examiner for Christ University

**21. Faculty as members in, a) National committees -01-Computer Society of India**

**22. Student Projects**

**a) Percentage of students who have done in-house projects including inter Departmental/programme:**

Course	Year	Percentage of Project
BCA	2011-2016	100%
B.Sc	2011-2016	100%
M.Sc	2012	95%
	2013	93%
	2014	92%
	2015	94%
	2016	95%

**b) Percentage of students placed for projects in organizations outside the Institution i.e., in Research Laboratories / Industries / Other agencies.**

Course	Year	Percentage of Project
MCA	2011	100%
	2012	100%
	2013	100%
	2014	100%
	2015	100%
	2016	100%
M. Sc	2012	5%
	2013	7%
	2014	8%
	2015	6%
	2016	5%

**23 Awards / Recognitions received by faculty and students:**

Course	Year	Student Name	Award
MCA	2011	Stuti Kapoor	University 5th Rank
MCA	2011	Renika A	Best Outgoing Student Award
MCA	2012	Asha B M	Best Outgoing Student Award
MCA	2013	Rajalaxmi R	Best Outgoing Student Award
M.Sc	2012	Anu L	Best Outgoing Student Award
M.Sc	2012	Supriya Gowda	Best Outgoing Student Award
M.Sc	2013	Akshata	Best Outgoing Student Award
M.Sc	2014	Nagma Begum	University 2nd Rank
M.Sc	2014	Deenath Kumar	University 3rd Rank
BCA	2011	Anjana Anoop	Best Outgoing Student Award

BCA	2012	Arti Kumari	Best Outgoing Student Award
BCA	2013	Nima Yanzee Sherpa	Best Outgoing Student Award

**24. List of eminent academicians and scientists / visitors to the Department**

Sl. No.	Name of Expert speakers, designation, affiliation
1	Vakula Rani., Professor & HOD, CMRIMS, Bangalore.
2	Dr. K G Srinivasa HoD, Computer Science and Engineering , M S Ramaiah Institute of Technology
3	Dr. Geetha K S Profssor, Electronics and Communication Engineering, R. V College of Engineering
4	Asif P M Research and Development Division, M/S Synopsys
5	Dr. Bijoy Misra President,Radius World Pvt. Ltd.
6	Dr P K Sri Mani Professor,Computer Science ,Dayananda Sagar Institutes
7	Professor B A Kori Executive Director, Karnataka State Higher Education Council
8	Dr. Krishnamurthy G N Principal BNMIT Bangalore
9	Dr Hanumanthappa Professor & Chairman ,Department of Computer Science and Application, Bangalore University
10	Mr. Sumit Co-Founder & CEO CampusDiaries.com
11	Mr. R. S . Shanbhag CMD, Value Point Group
12	Mr. Ajay Nema Chief Architect at ADVA Optical Networking Ltd.
13	Mr. Anuroop Iyengar Founder, Director of CogKnit Semantics

**25. Seminars/ Conferences/Workshops organized & the source of funding**

Sl. No.	Name of national and international conferences	Year	Funding Agencies
1	National Conference on Current Trends in Computer Science	March 4 <sup>th</sup> 2014	Lara Technologies, Bangalore
2	National Conference on Current Trends in Computer Science	March 16 <sup>th</sup> 2016	Grofers Bangalore

**26. Student profile programme/course wise:**

Name of the Course/programme	Applications received	Selected	Enrolled		Pass percentage
			*M	*F	
BCA - 2011	90	71	55	16	65%
BCA - 2012	135	123	98	25	62%
BCA - 2013	110	102	67	35	67%
BCA - 2014	110	95	62	33	Result awaited
BCA - 2015	120	107	76	31	
BCA - 2016	210	197	124	73	
MCA - 2011	170	157	115	42	
MCA - 2012	70	51	38	13	76%
MCA - 2013	20	13	7	6	70%
MCA - 2014	50	35	20	15	Result awaited
MCA - 2015	25	20	14	6	
MCA - 2016 (LE-2 Yrs)	21	21	14	7	
M.Sc - 2011	20	18	10	8	86%
M.Sc - 2012	25	20	10	10	89%
M.Sc - 2013	27	20	11	9	85%
M.Sc - 2014	22	17	8	9	73%
M.Sc - 2015	20	16	8	8	Result awaited
M.Sc - 2016	20	16	7	9	
B.Sc - 2011	40	30	17	13	68%
B.Sc - 2012	60	50	27	23	72%
B.Sc - 2013	40	34	22	12	65%
B.Sc - 2014	40	34	24	10	Result awaited
B.Sc - 2015	70	63	52	11	
B.Sc - 2016	120	112	80	32	

\*M = Male \*F = Female

**27. Diversity of Students**

Name of the Course	% of students from the same state	% of students from other States	% of students from abroad
BCA - 2011	45%	41%	14%
BCA - 2012	69%	30%	1%
BCA - 2013	64%	35%	1%
BCA - 2014	74%	26%	0%
BCA - 2015	69%	31%	0%
BCA - 2016	76%	24%	0%

MCA - 2011	37%	63%	0%
MCA - 2012	22%	77%	1%
MCA - 2013	46%	54%	0%
MCA - 2014	54%	46%	0%
MCA - 2015	60%	40%	0%
MCA - 2016	100(LE)	0%	0%
M.Sc - 2011	70%	3%	27%
M.Sc - 2012	75%	25%	0%
M.Sc - 2013	55%	45%	0%
M.Sc - 2014	71%	29%	0%
M.Sc - 2015	75%	25%	0%
M.Sc - 2016	53%	29%	18%
B.Sc - 2011	60%	40%	0%
B.Sc - 2012	64%	36%	0%
B.Sc - 2013	43%	57%	0%
B.Sc - 2014	69%	31%	0%
B.Sc - 2015	65%	35%	0%
B.Sc - 2016	63%	37%	0%

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

### 29. Student progression

Student progression	Against % enrolled
UG to PG	80%
PG to M.Phil.	2%
PG to Ph.D.	5%
Ph.D. to Post-Doctoral	NIL
Employed	
Campus selection	42%
Other than campus recruitment	25%
Entrepreneurship/Self-employment	5%

### 30. Details of Infrastructural facilities

- **Library** –120 books
- **Class rooms with ICT facility** - 4
- **Internet facilities for Staff & Students** – 2 computers with internet access
- **Laboratories** - 8 Labs with 557 Computers and internet facility

**31. Number of students receiving financial assistance from College, University, government or other agencies**

Data given as cumulative of 5 years

Course	No of Students
BCA	45
MCA	60
M.Sc	15
B.Sc	20

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

**33. Teaching methods adopted to improve student learning:**

Sl. No.	Name of Expert speakers, designation, affiliation	Topic of guest lecture	Date
1	Ramesh Murthy	Career Opportunity	5/10/2016
2	Networks Home, Bangalore.	“Awareness Program on evolving technology & tremendous job opportunity”	27/07/2016
3	TRIAD Square Infosec Pvt. Ltd	IT Security	19/3/2015
4	Aptech Limited	Mobile App Development OS: Android”	13/2/2015
5	Ethnotech Academic Solutions	Career Guidance	14/01/2015
6	Research Institute India Pvt,Ltd, Bangalore	Bigdata Analysis	11/11/2014
7	Lara Technology	Hadoop	06/08/2014
8	Vakula Rani., MCA , M.Phil., (Ph.D), Professor & HOD, CMRIMS, Bangalore.	Storage Area Network	19/11/2013
9	Mr. Rajagopal	Cloud Computing Environment	11/10/2013
10	CISCO Technology	Careers in Networking(CISCO)	8/11/2012
11	Mr. Santosh Kumar H.G	Game Art & Programming	1/10/2012
12	Mr. Vikram. D	PHP	7/12/2011
13	Mr. Unnikrishnan. K. R	Android	17/11/2011

- Mentoring
- Interactive Classes
- Technical Presentations
- Assignments
- Problem Based Learning
- Group Discussions
- Case Study
- Video Lecturers
- Aptitude Test
- Industrial Visit

### **34. Participation in Institutional Social Responsibility (ISR) and Extension activities**

<b>Sl No</b>	<b>Name of Programme</b>	<b>Beneficiary</b>
<b>1</b>	Fundamentals of computers	Samarthanam Trust HSR Bangalore
<b>2</b>	Computer Awareness Programme	First Grade Govt. High School , Agara , Bangalore
<b>3</b>	Paperless Office	The office staff and the accounts section of the College
<b>4</b>	Plantation of Medicinal Plants	The Oxford College of Science
<b>5</b>	Workshop on 'Internet and Email Account opening'	Non-teaching staff ,The Oxford College of Science

### **35. SWOC analysis of the Department and Future plans**

#### **Strength**

- Highest Student Strength and more number of Courses
- Excellent placement assistance
- State of the art infrastructure
- Dedicated Faculty Members

#### **Weakness**

- Instability of the staff.
- Socio-Economic background of the student affects their communication ability, analytical skills and elementary computer skills.

#### **Opportunities**

- To learn and teach new Technologies like Cloud Computing, Ethical Hacking and Android Applications.
- To start certification programs

### **Challenges**

- Retaining the unique characteristics of College in line with the ideals of the institution.

### **Future Plans**

- To get government funded projects
- To excel in research
- Conduct more national/International conferences
- Introduce Job Oriented short term and Add-On Programs





## Evaluative Report of the Department of Electronics

**1. Name of the Department:** Electronics

**2. Year of Establishment:**

UG: 1994

PG: 2010

**3. Names of Programmes / Courses offered :**

UG- B.Sc

PG- M.Sc

**4. Names of Interdisciplinary courses and the Departments/units involved:**

**UG – triple major course**

- **P M E:** Physics, Mathematics, Electronics
- **E M Cs:** Electronics, Mathematics, Computer Science

**UG – Soft Core Papers**

- Environmental Science (EVS)
- Banking and Finance
- French
- Capital market
- German
- Indian Constitution
- Culture ,Diversity and Society
- Computer applications and Information technology
- Entrepreneurship and Innovation
- Life skills
- Fine Arts
- Performing Arts
- Community Work
- Personality Development and Leadership

**PG – Open Elective papers**

- Management Perspectives
- Media and Society
- Fashion and Apparel Design
- Write it Right
- Social movement and action
- Finance and banking

**5. Annual/ semester/choice based credit system**

- UG: Semester Scheme-2011-2014  
CBCS-2014 Onwards
- PG (Electronic Science) : Semester Scheme-2011-2014  
CBCS-2014 Onwards

**6. Participation of the Department in the courses offered by other Departments:**

The faculty of Electronics Department has taken class for the following papers for other Department students.

Department	Subject	Semester	Year
BCA	Digital -Electronics(Theory and Practicals)	UG-I semester	2011 onwards
MCA	Microprocessor-8086	PG-I semester	2011 -2015
All UG	Personality Development and Performing Arts	UG-I &III Semester	2015 onwards
BCA	Assembly language programming- Microprocessors 8085	UG-V Semester	2015
B.A.	Science and Society Softcore(Space science and Nano-technology)	UG-III semester	2015 onwards

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

Sl.no.	Name of the Course	Collaboration
1	“PCB Designing” for PG students-2016	Digitrack Scientific Instruments, Vijayanagar, Bangalore
2	“VLSI designing using OrCAD PSpice simulator” for PG students-2015	LIVE WIRE, Koramangala, Bangalore
3	“Circuit synthesis using Xilinx Cadence” for UG students-2015	LIVE WIRE, Koramangala, Bangalore

**8. Details of courses/programmes discontinued (if any) with reasons: NIL**

**9. Number of Teaching posts**

Designation	Sanctioned	Filled
Professors	1	0
Associate Professors	2	2
Assistant. Professors	5	5

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

Name	Qualification	Designation	Specialization	No. of Years of Experience	No. of Ph.D. Students guided for the last 4 years
Gayathri Sudhir	M.Sc, M.Phil	Associate prof. & Head	NA	21	Nil
Sathya Veena V	M.Sc, NET, KSET	Associate Professor	High Power devices	16	Nil
Ramanuja H S	M.Sc, NET, KSET	Assistant Professor	NA	10	Nil
Sandhya R	M.Sc	Assistant Professor	NA	6	Nil
Ramya H R	M.Sc	Assistant Professor	NA	2	Nil
Bharathi U N	M.Sc, NET	Assistant Professor	NA	2	Nil
Manjula G	M.Sc	Assistant Professor	NA	6 months	Nil
Manjunath H B	M.Sc	Assistant Professor	NA	3	Nil

**11. List of senior visiting faculty**

Sl.no.	Senior Visiting faculty	Designation
1	Mr.Ramesh(Power Electronics and DSP)	Associate Professor, Dept. of E&C, TOCE, Bangalore
2	Dr. J T Devaraju(C++, Embedded systems, Wireless Communication)	Professor, Dept. of Electronic Science, Bangalore University
3	Mr. Ajay Kumar D (Network Analysis, VHDL)	Associate Professor, Dept. of E&C, BMSIT, Bangalore

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

Year	Faculty	UG	PG	%	
				UG	PG
2011-2012	Mr. Adarsh	Nil	Theory -1	-	12.5%
2012-2013	Mrs. Aparna	Nil	Theory-1	-	12.5%
2013-2014	Ms.Pavithra	Nil	Theory-1	-	12.5%
2014-2015	Ms.Pavithra	Theory-1	Theory-1	12.5%	12.5%
	Mr. Manjunath	Theory-1	Theory-1	12.5%	12.5%
2015-2016	Mr. Manjunath	Theory-1; Lab-1	Theory-1	25%	12.5%

**13. Student -Teacher Ratio:**

Year	Student-Teacher Ratio			
	UG		PG	
	Theory	Practical	Theory	Practical
2011-2012	15:1	10:1	10:1	10:1
2012-2013	15:1	10:1	10:1	10:1
2013-2014	15:1	10:1	10:1	10:1
2014-2015	15:1	10:1	10:1	10:1
2015-2016	15:1	10:1	10:1	10:1
2016-2017	15:1	10:1	10:1	10:1

**14. Number of academic support staff (technical): sanctioned and filled**

	Sanctioned	Filled
Lab Attender	01	01
Lab Technician	01	00

**15. Qualifications of teaching faculty with DSc/ D.Litt/ Ph.D/ MPhil / PG. :**

Faculty with M.Phil	Faculty with NET/SLET	Faculty pursuing Ph.D, NET/SLET	Faculty with M.Sc
01	03	01	03

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

**17. Departmental projects funded by DST - FIST; UGC, DBT, ICSSR, etc. and total grants received**

Sl.No	Project/Conference	Sponsor	Amount in ₹
1	Spice-2013-14	VGST	30,000
2	10 “Helium v 1.1” CPLD Boards for field trial.	IITB	1,00,000
3	FIST-Strengthening research facility	DST	60,00,000

**18. Research Centre /facility recognized by the University: NIL**

**19. Publications:**

Sl.No	Faculty	Publications in Conference proceedings	
		National	International
1	Mrs.Gayathri Sudhir	2(Jnanarjana2014,Bangalore)	Nil
2	Mr. Ramanuja H S	2(Jnanarjana2014,Bangalore)	1(COMSOL Conference-2012)
3	Mrs.Sathya Veena V	2(Jnanarjana2014,Bangalore)	Nil

Number of papers published in peer reviewed journals (national / international) by faculty and students:	<p><b>Faculty</b>  <b>National: 2 (Jnanarjana 2014, Bangalore)</b>  <b>International: 1(COMSOL Conference-2012, Bangalore)</b></p> <p><b>Students:</b>  <b>International- 1 (ICAEET-2012-Vijayawada)</b>  <b>Rajashree D B and Sarah Qurrat Ul Ain</b></p>
Number of publications listed in International Database	Nil
Monographs	Nil
Chapter in Books	Nil
Books Edited	Nil
Books with ISBN/ISSN numbers with details of publishers	International Conference on Applied Science and Engineering-ICASE-2012 ; 978-81-923541-0-8
Citation Index	Nil
SNIP	Nil
SJR	Nil
Impact factor	Nil
h-index	Nil

**20. Areas of consultancy and income generated:**

- One of faculty member was a resource person for the workshop conducted by Jyoti Nivas College on “ Implementation of Digital Circuits on FPGA Using Verilog” in December 2015
- The faculty members have been appointed as BOS member for Bangalore University and Jyoti Nivas College

- The faculty members are also appointed as BOE member for Bangalore University, Jain University, NMKRV College and Jyoti Nivas College, St. Joseph's College.
- The Department has extended facility in developing projects for fashion and apparel design.
- Faculty member were resource persons for the workshop conducted for Jyoti Nivas College on "Aurdino based realtime projects " organized by the Department.

**21. Faculty as members in a) National Committees b) International Committees c) Editorial Boards :NIL**

**22. Student projects**

**a) Percentage of students who have done in-house projects including inter Departmental/programme :**

100% students undertake project work as it is mandatory part of some papers in Electronics; additionally 2% students have worked on funded projects.

**b) Percentage of students placed for projects in organizations outside the institution i.e.in Research laboratories/Industry/ other agencies:**

About 80% students work on projects with outside organizations

**23. Awards / Recognitions received by faculty and students**

S No	Name of the Student	Name of the Award	Year Of Award
1	ShruthiYadav	Best out going student award -PG	2016
2	ShruthiYadav	Banglore University Third Rank-PG	2016
3	Manjula G	Banglore University Fifth Rank-PG	2016
4	Niveditha	Best out going student award-PG	2015
5	Ravi Mashru	Best out going student award-UG	2015
6	Umang	Best out going student award-PG	2014
7	Manjunath	Best out going student award-PG	2013
8	Manjunath	Banglore University First Rank-Gold Medalist-PG	2013
9	Ramya Nair	Best out going student award-PG	2012

**24. List of eminent academicians and scientists / visitors to the Department**

Sl.no.	Eminent Academicians/Scientists	Designation
1	Padma Bhushan Prof.U.R.Rao	Chairman, KSTA / Former Chairman, ISRO
2	Padma Bhushan Dr. B.N.Suresh	Former Director, Vikram Sarabhai Space Centre/ Vikram Sarabhai Distinguished Professor ISRO Headquarters, Bengaluru
3	Shri . Philip Jacob	Executive Director Bharat Electronics Limited , Bengaluru
4	Dr.Anil	Scientist, IISC

5	Dr.Ratna	Scientist, IISC
6	Dr.A.M.Khan	Chairperson, Dept. of Electronics, Mangalore University
7	Dr Ramesh Tamankar	Singapore University of Technology and Design
8	Dr J.T Devaraju	Professor, Dept. of Electronic Science, Bangalore University
9	Mr K.V Subba Rao	Project Manager, Tech Mahindra

**25. Seminars/ Conferences/Workshops organized & the source of funding:**

Sl.no	Conferences /Workshop/ Seminar	Source of funding
1	National Conference : Jnanarjana- February 2014	Self
2	National Conference : Science, technology and productization are means for growth February 2015	KSTA
3	Workshop on interfacing of PIC Microcontroller-May-2012	Self
4	Workshop on wireless communication February 2014	KSTA
5	Workshop on VLSI using cadence software April -2015	Self
6	Workshop on PCB Designing by Live-Wire Bangalore, August 2015	Self
7	Workshop on interfacing with Aurdino board in association with EmbDes Technologies- Bangalore, January-2016	Self
8	Workshop on PIC Microcontroller Sep-2016	Self
9	Workshop on Verilog programming and interfacing- January2017	Self
10	Workshop on Aurdino based real time projects February-2017	Self
11	Seminar on control systems Dec 2011	Self
12	Seminar on Object oriented programming June-2012	Self
13	Seminar on 8086 interfacing 2013	Self
14	Seminar on Nano technology Jan 2016	Self
15	Seminar on Wireless communication Feb 2016	Self
16	Seminar on Embedded systems Feb-2016	Self
17	Seminar of Templates- C++ programming Dec -2016	Self

18	Transient fest conducted April-2016	Self
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**26. Student profile course wise:**

Name of the Course/programme	Applications received	Selected	Enrolled		Pass percentage
			*M	*F	
B.Sc-2011-2014	25	15	9	6	100
B.Sc-2012-2015	42	32	18	14	100
B.Sc-2013-2016	39	29	22	7	100
B.Sc-2014-2017	22	20	16	4	79
B.Sc-2015-2018	40	35	20	18	100
B.Sc-2016-2019	90	75	47	28	Results Awaited
M.Sc 2011-2013	19	17	9	8	57.14
M.Sc 2012-2014	20	19	10	9	58.82
M.Sc 2013-2015	22	19	9	10	64.28
M.Sc 2014-2016	20	17	8	9	58.82
M.Sc 2015-2017	20	16	10	6	52.63
M.Sc 2016-2018	08	06	4	2	Results Awaited

\*M = Male \*F = Female

**27. Diversity of Students**

Name of the Course	% of Students from the same state	% of students from other States	% of Students From Abroad
B.Sc(2011-2014)	47	53	0
B.Sc(2012-2015)	56.25	43.75	0
B.Sc(2013-2016)	65.5	34.5	0
B.Sc(2014-2017)	61.1	38.9	0
B.Sc(2015-2018)	68.6	31.4	0
B.Sc(2016-2019)	71.3	21.3	1.3
M.Sc(2012-2014)	52.63	48.42	0
M.Sc(2013-2015)	65	35	0
M.Sc(2014-2016)	82.3	17.7	0



M.Sc(2015-2017)	84.6	15.4	0
M.Sc(2016-2018)	100	0	0

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

**29. Student progression**

Student progression	Against % enrolled
UG to PG	1%
PG to M.Phil.	Nil
PG to Ph.D.	Nil
Ph.D. to Post-Doctoral	NA
Employed	90%
Campus selection	10%
Other than camps recruitment	
Entrepreneurship/Self-employment	2%

**30. Details of Infrastructural facilities**

- **Library:** 100 books
- **Internet facilities for Staff & Students-** 5 Computers with internet facility; common computer lab with 557 computers.
- **Class rooms with ICT facility:** 01
- **Laboratories:**03 (Analog Lab, Digital Electronics and Microprocessor Lab)  
Computer laboratories:02 (C programming and DSP Lab ).

**31. Number of students receiving financial assistance from College, University, government or other agencies:**

Sl.no.	Year	UG	PG
1	2013	Janavi (ST)	Kiran N(OBC)
2	2014	Janavi (ST)	Sumitra (SC)
3	2015	Janavi (ST)	Vijendra (OBC), Siddaraju (OBC)
4	2016	Tejashree Nirmala V	Nil

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

Sl.no.	Programmes	Resource person	Year
1		Dr. Ramesh Tamankar-"Nanostructures", CMR University	February 2017

2	Seminar	Dr. J T Devaraju- "Microprocessors-8086"- Bangalore University	December -2016
3		Mrs. Sona D –"C Programming" Principal Coach- Blue Willet Solutions	September-2016
4		Dr. J T Devaraju- "Wireless and Communication"- Bangalore University	February 2016
5		Dr. Ramesh Tamankar-"Introduction to Nano Science", Singapore University	January 2016
6		Dr. J T Devaraju- "PIC Microcontroller" Bangalore University	May 2015
7		Dr. J.T. Devaraju –"Modern Control System"-Bangalore University	December 2011
8		Workshop	Mr. Vishwanath-Live wire-"Circuit Synthesis using Xilinx-Cadence", Koramangala
9	Mr. Amrith-Live wire-"VLSI Designing using Or CAD " Kormangala		April 2015
10	Mr. Srikanth and Mr. Bivin –"Virtual lab"- Sparsha Learning Technologies		December 2012
11	Mr. VikasKalkeri and Mr. Vasanth Kumar-"VLSI"-Wipro Limited		December 2012
12	Mr. Bharat (IITBombay)and Mr. Ajay(Asst.Prof. at TOCE)-"Digital Design Software –Xilinx13.1 imparted on Spartan 3E kit		December 2012
13	Mr. Ajay(Asst.Prof. at TOCE)-"Digital Design using FPGA and CPLD		July 2011
14	Guest lecture	Mr. AnantKeshav - " Power factor reduction" -Skanray technologies ,Mysore	February 2016
15		Mr. V Subba Rao-"Wireless Systems and Standards" Tech Mahindra.	April 2016
16		Dr. S. C. Raghavendra (Professor PESIT)"Microwave Devices in microwave bench"	June 2012
17		Dr. J.T. Devaraju –"Interfacing Kits-PCI Card slot for Dual DAC Interface, Multiplexed Seven Segment Display Card."-Bangalore University	June 2012
18		Dr. J.T.Devaraju –"Object oriented C++, Embedded systems-interrupt basic and survey of the software architecture "- Bangalore University	May 2012

### 33. Teaching methods adopted to improve student learning:

- Utilization of virtual lab facilities offered by IITB
- Exhaustively prepared workbooks
- Personality development, brain gym etc.,

- Power point presentation
- Problem based learning

### **34. Participation in Institutional Social Responsibility (ISR) and Extension activities:**

- The Department has taken initiative to educate the students about E-waste management.
- Use technology effectively to reduce paper
- Involvement in NSS activities and blood donation camps

### **35. SWOC analysis of the Department and Future plans:**

#### **Strength**

- Need based effective industry interaction
- Teaching and learning blended with current affairs.
- Use of different FOSS to enhance technical skills.
- projects in association with IISC, DRDO, NAL, RV INSTITUTE and BEL
- seminars, career guidance and training
- Use of ICT technology
- Efficient mentoring systems

#### **Weaknesses**

- Campus recruitment for M.Sc. students
- M.Sc. Electronic science does not draw the best students
- The Department must possess more licensed software to carry out Research projects

#### **Opportunities**

- Initiate major research projects
- Career oriented and Add-on course as per industry requirements
- Strategic alliances and partnership with industries
- Establishment and learning of in-house repair maintenance and modification of electronic equipments
- Research in core and interdisciplinary areas in major and minor projects

#### **Challenges**

- Growing competition with University and other autonomous Colleges.
- Numerous job opportunities with intergrated PG programme.

### **Future Plans**

- Procure more number of licensed software which will help in developing good research projects.
- Aim at Government Funded projects.
- Develop VLSI labs for self sustenance
- Conduct Add-on Courses in association with industries.
- To establish research centre



**Evaluative Report of the Department of Physics**

**1. Name of the Department:** Department of Physics

**2. Year of Establishment:**

- UG 1994
- PG 2014

**3. Names of Programmes / Courses offered:**

- B.Sc (PME, PMCS)
- M.Sc Physics

**4. Names of Interdisciplinary courses and the Departments/units involved:**

**UG Soft Core**

- Environmental Science (EVS)
- Banking and Finance
- French
- Capital market
- German
- Indian Constitution
- Culture, Diversity and Society
- Computer applications and Information technology
- Entrepreneurship and Innovation
- Life skills
- Fine Arts
- Performing Arts
- Community Work
- Personality Development and Leadership

**Interdisciplinary UG courses**

- P-M-CS (Physics-Mathematics- Computer Science)
- P-M-E (Physics-Mathematics- Electronics)

**Interdisciplinary PG courses – Open Elective**

- Management Perspectives
- Media and Society
- Fashion and Apparel Design
- Write it Right
- Social movement and action
- Banking and finance
- Applied Biotechnology

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

2011-2013 UG Semester

2014-2016- UG, PG Semester / Choice Based Credit System (UG & PG)

**6. Participation of the Department in the courses offered by other Departments:**

Sl No	Department	Paper/Topics	Department	Year
1	B.A.	Science and Society Soft core	UG-III semester	2015 Onwards

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

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

9. Number of Teaching posts

Teaching Post	Sanctioned	Filled
Professors	1	0
Associate Professors	2	2
Assistant. Professors	4	4

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

Name of the Faculty	Qualification	Designation	Specialization	No. of Years of Experience	No. of Ph.D. Students guided for the last 4 years
Dr.Srilatha R.	M.Sc., PhD	Associate professor & Head	Condensed matter physics	09	Nil
Shanthala V.S.	M.Sc., M.Phil	Associate Professor	Solid state Physics	22	Nil
Ms. Mohsina Taj	M.Sc.,	Assistant Professor	Condensed matter physics	2.5	Nil
Mr. Sumantha	M.Sc.	Assistant Professor	Material science	1.5	Nil
Dr. Manirupa Saha	M.Sc., Ph.D.	Assistant Professor	Nonlinear optics	3.4	Nil
Nisha PG	M.Sc.,M.Tech.	Assistant Professor	Space and atmospheric physics	3.5	Nil

**11. List of senior visiting faculty**

SL. No	Name of the faculty	Designation
1	Dr. Sarmishta Sahu	Associate Professor, HOD, Dept. of Physics, MLA College, Bangalore
2	Dr. B. S. Seshadri	Retired Scientist BARC Currently HOD, Dept. of Physics National Degree College, Bangalore
3	Dr. P. Raghothama Rao	Retired Scientist "G", DRDO Currently Visiting Professor at National Degree College, Bangalore
4	Dr. Satish L.A	Coordinator for PG at Govt. Science College, Bangalore
5	P. S. Sura	Scientist and Division Head , ISRO
6	Dr. Basavaraja Angadi	Asst. Professor , Department of Physics, Bangalore University
7	Prof. Balakrishnan Manikiam	Retired Scientist from ISRO

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

Year	Percentage of lectures and practical classes handled (programme wise) by temporary faculty
2014	10
2015	10

**13. Student -Teacher Ratio:**

Year	B.Sc Theory	B.Sc Practical	M.Sc Theory	M.Sc Practical
2011 - 12	12:1	8:1	Nil	Nil
2012 - 13	15:1	7:1	Nil	Nil
2013 - 14	18:1	7:1	Nil	Nil
2014 - 15	10:1	7:1	4:1	8:1
2015 - 16	11:1	9:1	6:1	8:1
2016 - 17	23:1	15:1	6:1	9:1

**14. Number of academic support staff (technical): sanctioned and filled**

Support Staff	Sanctioned	Filled
Lab Attender	1	1
Lab technician	1	0

**15. Qualifications of teaching faculty with DSc/ D.Litt/ Ph.D/ MPhil / PG. :**

Sl No	Qualifications	No
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1	Ph.D	2
2	M.phil	1
3	M.Tech	1
4	M.Sc	2
5	NET	2

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

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

Nature of the Project	Duration	Title of the project	Name of the funding agency	Total Grant		Total grant received till date
				Sanctioned	Received	
Minor projects	2012-13 6 months	SPICE	VGST	₹ 30,000/-	₹ 30,000/-	₹ 30,000/-
Major project Applied by the College	NA	Data Science and Informatics Facility	DST-FIST	Result Awaiting	NA	NA

18. Research Centre /facility recognized by the University: No

19. Publications:

Sl.No	Name	Publication per faculty
1	R. Srilatha	3
2	V.S. Shanthala	3
3	Manirupa Saha	6
4	P.G. Nisha	3

Sl. No.	Details	Numbers
1	Number of papers published in peer reviewed journals (national /international) by faculty and students (last four years):	15
2	Number of publications listed in International Database	15
3	Monographs	Nil
4	Chapter in Books	Nil
5	Books Edited	Nil
6	Books with ISBN/ISSN numbers with details of publishers	Nil
7	Citation Index	15
8	SNIP	14



9	SJR	14
10	Impact factor	15
11	h-index	15

**20. Areas of consultancy and income generated:**

	University	Name of the Faculty	Year
Syllabus framing	BOS, Bangalore University	Shanthala. V. S	2016
Paper setting	BOE, JSS University	Dr. Srilatha	2015
Paper setting	BOE, JSS University	Shanthala. V. S	2015

**21. Faculty as members in a) National Committees b) International Committees c) Editorial Boards**

S. No.	Name	National committees
1	Dr.Srilatha	Indian Association of Physics Teachers (IAPT) member
2	Shanthala. V.S	Indian Physics Association (IPA) Life member
		Indian Association of Physics Teachers (IAPT)
3	Mohsina Taj	Indian Association of Physics Teachers (IAPT)
4	Sumantha.	Indian Association of Physics Teachers (IAPT)
5	Dr.Manirupa Saha	Indian Association of Physics Teachers (IAPT)
		Optical Society of America

**22. Student projects**

- a) Percentage of students who have done in-house projects including inter Departmental/programme: 13%
- b) Percentage of students placed for projects in organizations outside the institution i.e.in Research laboratories/Industry/ other agencies: Nil

**23. Awards / Recognitions received by faculty and students**

Praveen. B. R	Best outgoing student of the year 2014-2016 ( M.Sc)
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**24. List of eminent academicians and scientists / visitors to the Department**

Sl. No	Date	Academicians and Scientists	Designation
1	25- 08- 2016	Prof. B.S. Sheshadri	Scientist, BARC HOD, PG Department of Physics, National Degree College, Jayanagar
2	1-03-2016	Dr. Basavaraja Angadi	Asst. Professor, Department of Physics, Bangalore University

3	18-02-2016	Prof. Sarmista Sahoo	Associate Prof and HOD, Dept, of Physics MLA College
4	4-02-2016	Prof.B.S. Seshadri	Retired Scientist, BARC HOD, PG Department of Physics, National Degree College.
5	6-11-2015	Dr.P.Raghothama Rao	Retired Scientist, DRDO Visiting Professor at National Degree College, Bangalore
6	26-03-2015 And 27-03-2015	Dr. Satish LA	Asst. Professor, PG Department of Physics Govt. Science College, Bangalore
7	2-09-2014	Prof. Sarmistha Sahoo	Associate Prof and HOD, Dept, of Physics MLA College
8	12-03-2014	Prof. Sarmista Sahoo	Associate Prof and HOD, Dept, of Physics MLA College

**25. Seminars/ Conferences/Workshops organized & the source of funding:**

Sl. No	Year	Subject	collaboration	Amount/grants receive	Whether proceeds papers, published
1	25-08-16	Indian Nuclear Power Scenario	National Degree College	Management funded	Nil
2	1/3/2016	Recent trends in nanotechnology	Bangalore Universty	Management funded	Nil
3	18-02-16	Quantum Tunneling	MLA College	Management funded	Nil
4	4/2/2016	Science and Spirituality	National Degree College	Management funded	Nil
5	20-11-2015.	Industrial visit	RADIO TELESCOPE CENTRE, Gauribidanur	Management funded	Nil
6	6/11/2015	Material science - Foundation for Engg. systems	National Degree College	Management funded	Nil
7	26-03-15 and 27-03-15	Nuclear Radiations	Government Science	Management funded	Nil
8	2/9/2014	Collisions	MLA College	Management funded	Nil
9	12/3/2014	Numerical Methods in physics	MLA College	Management funded	Nil

10	2011, Two Day seminar.	National Robotics Champion Ship	IITMUMBAI	Student of funded	Nil
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**26. Student profile course wise:**

Name of the Course/programme (refer question no.)	Applications received	Selected	Enrolled		Pass percentage
			*M	*F	
M.Sc 2014-2016	16	16	10	06	23
M.Sc 2015-2017	16	16	01	15	56
M.Sc 2016-2018	16	16	10	06	Result awaiting
BSc 2011-14	8	8	05	03	79
BSc 2012-15	14	14	06	08	58
BSc 2013-16	14	14	08	06	80
BSc 2014-17	14	10	04	06	90
BSc 2015-18	17	17	11	07	90
BSc 2016-19	53	48	28	20	Result awaiting

\*M = Male \*F = Female

**27. Diversity of Students**

Year	Name of the Course	% of students from the same state	% of students from other States	% of students from abroad
2011-14	B.Sc	100	Nil	-Nil-
2012-15	B.Sc	61	39	-Nil-
2013-16	B.Sc	79	21	-Nil-
2014-17	B.Sc	80	20	-Nil-
2015-18	B.Sc	17.6	70.5	11.7
2016-19	B.Sc	23	77	-Nil-
2014-16	M.Sc Physics	100	Nil	-Nil-
2016-18	M.Sc Physics	70	30	-Nil-

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

### 29. Student progression

Student progression	Against % enrolled
UG to PG	20 – 40
PG to M.Phil.	NIL
PG to Ph.D.	NIL
Ph.D. to Post-Doctoral	NIL
Employed	NIL
Campus selection	75 UG
Other than campus recruitment	80 PG
Entrepreneurship/Self-employment	25

### 30. Details of Infrastructural facilities

- Department Library**–72 Books
- Internet facilities for Staff & Students:** No. of Computers in the Dept-03 with one printer; common computer lab with 557 computers
- Classroom with ICT-** NIL
- Laboratories**

Name of the Lab	Number
Optics lab	1
Electronics lab	1
Atomic and molecular physics lab	1
Condensed matter physics lan	1
Nuclear physics lab	1

### 31.Number of students receiving financial assistance from College, University, government or other agencies:

All the SC, ST and OBC students under University quota received the financial Assistance from Government

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

Title of enrichment programmes	Name of experts	Date
Indian Nuclear Power Scenario	Dr. B. S. Seshadri Retired Scientist BARC National Degree College, Bangalore	25/08/16
Recent trends in nano Technology	Dr. Basavaraja Angadi Asst. Professor, Department of Physics, Bangalore University	01/03/16
Quantum Tunneling and Numerical Methods in physics	Dr. Sarmishta Sahu Associate Professor, HOD, Dept, of Physics, MLA College	18/02/16

Science and Spirituality	Dr. B. S. Seshadri Retired Scientist BARC Currently HOD, National Degree College, Bangalore	4/02/16
Material Science – Foundation for Engineering Systems	Dr. P. Raghothama Rao Retired Scientist “G”, DRDO Currently Visiting Professor at National Degree College, Bangalore	06/11/15
Nuclear Radiations	Dr. Satish L.A Coordinator for PG at Govt. Science College Bangalore	26/03/15
Mars Orbit Mission	P. S. Sura Scientist and Division Head at ISRO	19/12/14

**33. Teaching methods adopted to improve student learning:**

- Assignment
- Enrichment Programme
- Guest Lecture
- Internal Test
- Activity oriented programme
- PBL
- Seminar Presentation
- Educational Trip
- e- Galaxy club
- Mock Practical exam
- Workshop

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

Year	Social Responsibility/ Extension activities
1-03-2016 and 2-03-2016	National Science Day celebrations
1-03-2015	National Science Day celebrations

**35. SWOC analysis of the Department and Future plans:**

**Strength**

- The young and dynamic teaching faculty
- The Teaching-Learning methodology and infrastructure
- Well equipped laboratory.
- Increasing intake of the students at both UG and PG level
- Negligible dropout rate.

### **Weakness**

- Lack of Collaboration with other research institutes
- Limitation of job oriented courses for the students.

### **Opportunities**

- Students completed Ug or PG course can opt for the IT jobs offered in the campus selections
- Projects leading to research
- Workshope and training programe with IISc, IIA, ATSOA
- Careear in Academic field.

### **Challenges**

- Making the MSc students to clear all the papers at a time
- Improving the communication skills of students coming from rural areas.
- Time constraint for writing good research proposals
- Inspiring students to understand the importance and need for basic sciences and spread the knowledge of Physics and its applications

### **Future plans**

- Conducting Industry Interface lectures
- To strengthen the employability skills in students
- Improve on R &D activities
- To organize a National conference



## Evaluative Report of the Department of Mathematics

**1.Name of the Department:** Mathematics

**2.Year of Establishment:**

- UG-1994
- PG-2010

**3.Names of Programmes / Courses offered :**

B.Sc.
M.Sc. Mathematics

**4.Names of Interdisciplinary courses and the Departments/units involved:**

### **UG - triple major course**

- EMCs- Electronics, Mathematics and Computer Science
- SMCs- Statistics, Mathematics and Computer Science
- PMCs -Physics, Mathematics and Computer Science
- PME - Physics, Mathematics, Electronics

### **UG - soft core papers**

- Environmental Science (EVS)
- Banking and Finance
- French
- Capital market
- German
- Indian Constitution
- Culture, Diversity and Society
- Computer applications and Information technology
- Entrepreneurship and Innovation
- Life skills
- Fine Arts
- Performing Arts
- Community Work
- Personality Development and Leadership

### **PG - Open Elective papers**

- Management Perspectives
- Communication Media and Society
- Social movement and Social action
- Biotechnology for welfare



5. Annual/ semester/choice based credit system (programme wise):  
Semester/CBCS

Year	Course	Pattern
2010-2014	B.Sc and M.Sc	Semester based system
2014 -2016	B.Sc and M.Sc	Choice based credit system

6. Participation of the Department in the courses offered by other Departments:

Department	Subject	Semester	Year
BCA	105T- Discrete Mathematics	I	2015
	Numerical Methods	II	2016 -17 onwards
M.Sc Computer Science	Soft-core- Quantitative aptitude	I	2014 onwards
	Scilab	IV	2016 -17 onwards
MCA	Soft-core- Quantitative aptitude	III	2014 onwards
M.Sc Statistics	ST105- Real Analysis	I	2015
	Matrix algebra and Optimization techniques	II	2016 -17 onwards
M.Sc Genetics	Biostatistics	II	2016 -17 onwards

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

8. Details of courses/programmes discontinued (if any) with reasons: None

9. Number of Teaching posts

Designation	Sanctioned	Filled
Professors	1	1
Associate Professors	1	0
Assistant Professors	6	6

10. Faculty profile with name, qualification, designation, specialization, (D.Sc./D.Litt.

/Ph.D. / M. Phil. etc.,)

Name	Qualification	Designation	Specialization	No. of Years of Experience	No. of Ph.D. Students guided for the last 4 years
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Dr.Elsamma Thomas Varricatt	M.Sc., PhD	Professor and Head	Magneto Hydro Dynamics	35	NIL
V.Jyothirmai	M.Sc	Assistant professor	Systems Theory and computer Modelling	2.5	NIL
Anusha Boppana	M.Sc	Assistant professor	Mathematics	2.5	NIL
Veena.T.Y	M.Sc., B.Ed	Assistant professor	Mathematics	1	NIL
Kavya N	M.Sc	Assistant professor	Mathematics	1 month	NIL
Neha M	M.Sc., B.Ed, M.Ed	Assistant professor	Mathematics	2 months	NIL
Monica M V	M.Sc	Assistant professor	Mathematics	2 Years 1 Month	NIL

### 11. List of senior visiting faculty

- Dr. Sriram (Post-doctoral)- Professor, Bangalore University
- Ravi Chandra - Research scholar, Bangalore University
- Pallavi- Research scholar, Bangalore University
- Fathimunnisa - Research Scholar, Amrita University

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

Sl.No	Programme	Theory	Practical	% of lecture
1	M.Sc	M103T, M302T	M305P	30
2	M.Sc	M105T, M302T	NA	32
	B.Sc	NA	III Sem	
3	M.Sc	NA	M405P, M406P	28.5

### 13. Student -Teacher Ratio: Data cumulative of 5 years

Course	Theory	Practical
B.Sc.	58:1	58:1
M.Sc	22:1	22:1

**14. Number of academic support staff (technical): sanctioned and filled**

	Sanctioned	Filled
Attender	1	0

**15. Qualifications of teaching faculty with DSc/ D.Litt/ Ph.D/ MPhil / PG. :**

PhD	1
M.Sc	6

**16. Number of faculty with ongoing projects from a) National b) International funding agencies and grants received: None**

**17. Departmental projects funded by DST - FIST; UGC, DBT, ICSSR, etc. and total grants received**

Proposed for a project in Data Science and Informatics under DST-FIST

**18. Research Centre /facility recognized by the University:**

As the Department of mathematics has enhanced its skills from past 5 years, we are planning to apply for the research centre as soon as possible

**19. Publications**

Number of papers published in peer reviewed journals	Nil
Number of publications listed in International Database	
Monographs	
Chapter in Books	
Books Edited	
Books with ISBN/ISSN numbers with details of publishers	
Citation Index	
SNIP	
SJR	
Impact factor	
h-index	

**20. Areas of consultancy and income generated:**

- Dr.Elsamma Thomas Varricatt - Paper Setter for Bangalore University and Christ University
- Anusha Boppana - Paper setter for JSS University, Mysore

Extension of Consultancy services in the form of activity based learning for school children with self funding

**21. Faculty as members in a) National Committees b) International Committees c) Editorial Boards.**

**National Committees:**

Dr. Elsamma Thomas Varricatt- Faculty of Science and Chief Superintendent for UG and PG, Bangalore University

**22. Student projects**

**a) Percentage of students who have done in-house projects including inter Departmental/programme :**

Year	Class	In-house
2015-16	MSc Mathematics	100 %
2016 - 17	MSc Mathematics	

**b) Percentage of students placed for projects in organizations outside the institution i.e.in Research laboratories/Industry/ other agencies:**

As per the curriculum designed by the University, our students are totally involved in the in-house projects, and so there are no requirements for projects outside the organization

**23. Awards / Recognitions received by faculty and students**

Dr.Elsamma Thomas Varricatt	<b>Member, Faculty of Science, Bangalore University</b>
	Chief Superintendent, UG and PG, BU
	Former Principal, The Oxford College of Science
	Former Principal, The Oxford College of Arts
	Former Syndicate member, Bangalore University
	Academic council member, BU
	Local Inquiry Committee member, BU
	Core Committee Member, BU
Jyothirmai Varanasi	Gold Medalist in M.Sc from Jawaharlal Nehru Technological University, Hyderabad
Anusha Boppana	Topper in M.Sc, Oxford College of Science

**Student Awards/Recognitions**

Year	Best student UG	Best student PG
2015	Ravi- EMC's	Chennabasava
2016	Najma Bhanu- EMC's	Sowmya.M

**24. List of eminent academicians and scientists / visitors to the Department**

Scientists/visitors	Designation	University
Dr. P.J.Siddeshwar	Professor and former Chairman of Mathematics	Bangalore University
Dr.Mahadeva Naik	Chairman of Mathematics	Bangalore University
Dr. Medha	Professor	Bangalore University
Dr. Ramesh.B.Kudinetti	Professor	Bangalore University
Prof.Ammani kuttan	Professor	Christ University
Dr. Anirban	Professor	Christ University

**25. Seminars/ Conferences/Workshops organized & the source of funding:**

Conference	Year	Source of Funding
Workshop on Matlab	March 2015	Self Funding
7 <sup>th</sup> Annual KSTA conference on Science, Technology and Productization - A means for growth at The Oxford college of science	5 <sup>th</sup> & 6 <sup>th</sup> Feb 2015	Karnataka Science and Technology Academy
6 <sup>th</sup> National Science Conference Jnanarjana 2K14 at The Oxford College of Science	27 <sup>th</sup> & 28 <sup>th</sup> Mar 2014	Self Funding
Workshop on Scilab and Maxima	July 2013	Karnataka Science and Technology Academy

**26. Student profile course wise:**

Year	Name of the	Applications	Selected	Enrolled	Pass
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	Course/programme	received		*M	*F	percentage
2011-12	B.Sc	35	33	18	15	61
	M.Sc	15	15	10	05	93
2012-13	B.Sc	58	55	29	26	65
	M.Sc	30	30	06	24	74
2013-14	B.Sc	40	39	26	13	79
	M.Sc	46	46	19	27	83
2014-15	B.Sc	36	36	21	15	62
	M.Sc	16	16	07	09	76
2015-16	B.Sc	65	64	34	30	45
	M.Sc	11	11	04	07	83
2016-17	B.Sc	150	127	86	38	NA
	M.Sc	30	16	04	11	NA

**\*M = Male \*F = Female**

## 27. Diversity of Students

Year	Name of the Course/programme	% of students from same state	% of students from other states	% of students from abroad
2011-12	Bsc	47	53	Nil
	M.Sc	60	20	20
2012-13	Bsc	52	40	08
	M.Sc	84	16	Nil
2013-14	Bsc	76	24	Nil
	M.Sc	85	15	Nil
2014-15	Bsc	58	32	Nil
	M.Sc	82	18	Nil
2015-16	Bsc	57	33	Nil
	M.Sc	91	9	0
2016 - 17	Bsc	66	31	3
	M.Sc	81	19	-

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

Dheeraj Deka- Msc Mathematics Cleared GATE exam in the year 2015

29. Student progression

Student progression	Against % enrolled
UG to PG	40
PG to M.Phil.	Nil
PG to Ph.D.	2
Ph.D. to Post-Doctoral	Nil
<b>Employed</b>	
Campus selection	Nil
Other than campus recruitment	70
Entrepreneurship/Self-employment	10

30. Details of infrastructural facility

a) **Library** - The Department has a well-stocked library provided with updated books for each semester which will help staff as well as Students. The Department library has 70 books.

b) **Internet facilities for Staff & Students**

Details	Number
Computers with internet facilities	45

c) **Class rooms with ICT facility**- Interactive boards and computers with LCD projectors are some of the tools frequently made use for an enhanced teaching-learning environment and effective time management in the classroom. There is a common computer lab with 557 computers.

d) **Laboratories**- One laboratory for conducting practicals in mathematical softwares like **Scilab, maxima and Latex**

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

All SC/ST/OBC students under Bangalore University quota are eligible for scholarships

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

Year	Guest Lectures	Workshops	Enrichment courses
2015	1.Dr.Mahadeva Naik(Chairman,BangaloreUniversity) on “Partial Differential Equations” 2.Dr.Sushan Bairy(HOD and Asst.Professor at Vijaya college) on “Topology”	Two day workshop on “Matlab and its applications” By Mrs.Smitha(Research assistant at Amrita University)	1.”Computational Linear algebra” by Mrs.V.Jyothirmai 2.”Measure and Integration” by Mrs.Anusha Bopanna
2014	1.Dr.Ramesh.B.Kudinetti(Bangalore University) on“Fluid Dynamics” 2.Dr.Ammani Kuttan(Christ Engineering on “Ordinary Differential Equations”	Two day workshop on “Maxima and its applications” by Dr.V.Sriram(Bangalore University)	1.”Mathematical methods” by Mrs.V.Jyothirmai 2.”Differential Geometry” by Mrs.Anusha Boppana
2013	1.Dr.Ammani Kuttan(Christ Engineering college) on “Linear Algebra” 2.Dr.Anirban Roy(Christ University) on “Topology”	A one day workshop on “Current trends in Mathematical world” by Dr.MahadevaNaik(C hairman, Bangalore University)	1.”Algebra” by Mrs.Deepthy 2.”Magneto Hydro dynamics” by Mrs.Fathimunnisa
2012	1.Dr.P.G.Siddeshwar(Bangalore University) on “Numerical analysis” 2.Dr.Marala Bhavi(Banagalore University) on “Graph Theory”	A two day workshop on “Scilab and its uses” by Dr.P.G.Siddeshwar (professor at Bangalore University) and Dr.SushanBairy	1.”Discrete Mathematics” by Ravi Chandra 2.”Numerical analysis” by Dr.Elsamma Thomas Varricatt
2011	1.Dr.Father Joseph(Christ University) on “complex analysis” 2.Anirban Roy(Christ engineering college) on “sequences and series”	1.A one day workshop on “Graph theory” by Mrs.Deepthi 2. A one day workshop on “Differential Equations” by Ms.syeda	1.”Complex Analysis” by Dr.Elsamma Thomas Varricatt 2.”Real Analysis” by Ms.Pallavi

**33. Teaching methods adopted to improve student learning:**

- PPT
- Group Discussions
- Guest Lectures



- Problem Based Learning
- Assignments and Seminars

#### **34. Participation in Institutional Social Responsibility (ISR) and Extension activities:**

- NSS
- Blood donation camps
- Oxford-Marathon
- Community work programs
- Plastic free campus programs
- Eye-check-up programs

#### **35. SWOC analysis of the Department and Future plans:**

##### **Strength**

- Dedicated, qualified and diversified faculty
- Satisfactory infrastructure facility
- Active and disciplined student's community
- Continual up gradation of teaching skills by attending workshops, refresher and orientation programmes.

##### **Weaknesses**

- Instability of faculty
- Frequent change in curriculum design

##### **Opportunities**

- Department can play major role in supporting the students for various competitive exams
- Passed out students with good results in Mathematics get opportunity for higher studies in various fields like pure, applied Mathematics and also pursuing higher degrees like M.Phil, PhD, Post doctoral fellowships in reputed Universities and institutions.
- Diverse job avenues in industries as the students are familiar with mathematical softwares.

##### **Challenges**

- To deal with the students who have low academic background
- Limited exposure for the students from rural background and is difficult to make them understand the software's of mathematics

- To sensitize our students to the needs of society

### **Future plans**

- To start a research centre
- To strengthen Corporate College Interface(CCI)
- To increase employability skills among students
- To improve Consultancy services



**Evaluative Report of the Statistics Department**

**1. Name of the Department:** Statistics

**2. Year of Establishment:**

- UG-2005
- PG-2010

**3. Names of Programmes / Courses offered:**

- UG- B.Sc
- PG- M.Sc

**4. Names of Interdisciplinary courses and the Departments/units involved:**

- SMCs(Statistics, Mathematics and Computer Science)

**UG courses – Soft Core**

- Environmental Science (EVS)
- Banking and Finance
- French
- Capital market
- German
- Indian Constitution
- Culture ,Diversity and Society
- Computer applications and Information technology
- Entrepreneurship and Innovation
- Life skills
- Fine Arts
- Performing Arts
- Community Work
- Personality Development and Leadership

**PG courses – Open Elective**

- Management Perspectives
- Media and Society
- Fashion and Apparel Design
- Write it Right
- Social movement and action
- Banking and finance
- Applied Biotechnology

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

Year	Course	Pattern
2010-2014	B.Sc and M.Sc	Semester
2014 -2016	B.Sc and M.Sc	Choice based credit system

6. Participation of the Department in the courses offered by other

Departments:

Department	Subject	Sem	Year
B.Sc Biotechnology	Biostatistics	II	2011 onwards
M.Sc Biotechnology		I	2011 onwards
M.Sc Microbiology		I	2011 onwards
M.Sc Biochemistry		I	2011 onwards
M.Sc Applied Genetics		II	2011 onwards
M.Sc Computer Science	Optimization Techniques	II	2014 onwards
Master of Computer Application		IV	2014 onwards
M.Sc Computer Science	Research Methodology	IV	2014 onwards
Master of social work	Statistics	II	2013 onwards

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

Sl. No.	Course type	Institution under collaboration	Deliverables
1	Add-on program for M.Sc. students	INQRA-Institute of Qualified researchers and Analysts	SAS (Statistical Analysis software)

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

9. Number of Teaching posts

	Sanctioned	Filled
Professors	1	1
Associate Professors	0	0
Assistant. Professors	5	5

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

Name	Qualification	Designation	Specialization	No. of Years of Experience	No. of Ph.D. Students guided for the last 4 years
Dr. Elsamma Thomas Varricat	M.Sc, Ph.D	Professor & Head	Magneto Hydro Dynamics	30	NIL
Renuka N	M.Sc M.Phil	Assistant professor	Statistics	5	NIL
Iveen Pinky Y	M.Sc	Assistant professor	Statistics	3 years 5 months	NIL
Jincy james	M.Sc	Assistant professor	Statistics	6 months	NIL

Shama M N	M.Sc	Assistant professor	Statistics	5 months	NIL
T Kagendra	M.Sc	Assistant professor	Statistics	1 month	NIL

### 11. List of senior visiting faculty

1. Dr. K. Anil Kumar  
Assistant Professor,  
Department of SQC and Operation Research  
Rayalseema University, Kurnool

2. Ms. Chaithra N  
Lecturer, Department of Life Science  
JSS University, Mysuru

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

Sl.No	Course	Paper (Theory)	Paper (Practical)	% of lecture
1	M.Sc	NA	C++	16.66
2	M.Sc	Distribution theory	NA	16.66
3	B.Sc	Sampling theory and Point estimation	NA	20

### 13. Student – Teacher Ratio:

	Year	Theory	Practical
M.Sc	2012	6:1	8:1
B.Sc		4:1	7:1
B.Sc	2013	2:1	8:1
M.Sc		4:1	7:1
B.Sc	2014	1:1	1:1
M.Sc		4:1	7:1
B.Sc	2015	1:1	1:1
M.Sc		4:1	8:1
B.Sc	2016	6:1	6:1
M.Sc		8:1	8:1

### 14. Number of academic support staff (technical): sanctioned and filled:

	Sanctioned	Filled
Technical Staff	0	0
Attenders	1	0

### 15. Qualifications of teaching faculty with DSc/ D.Litt/ Ph.D/ MPhil / PG. :

PhD	1
M.Phil	1

M.Sc	4
------	---

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

**17. Departmental projects funded by DST - FIST; UGC, DBT, ICSSR, etc. and total grants received**

Proposed for a project in Data Science and Informatics under DST-FIST

**18. Research Centre /facility recognized by the University: No**

**19. Publications:**

Number of papers published in peer reviewed journals	Nil
Number of publications listed in International Database	
Monographs	
Chapter in Books	
Books Edited	
Books with ISBN/ISSN numbers with details of publishers	
Citation Index	
SNIP	
SJR	
Impact factor	
h-index	

**20. Areas of consultancy and income generated:**

- Ms. Iveen Pinky Y – Paper setter and Paper Valuator for UG & PG Programme, JSS University, Mysore.
- Mrs. Renuka N- Statistical Advisor, The Oxford Medical College, Hospital and Research centre.
- Ms. Iveen Pinky Y –Examiner for PG Programme, JSS University, Mysore.
- Ms. Shama M.N.– Paper setter for PG Programme, JSS University, Mysore.

**21. Faculty as members in**

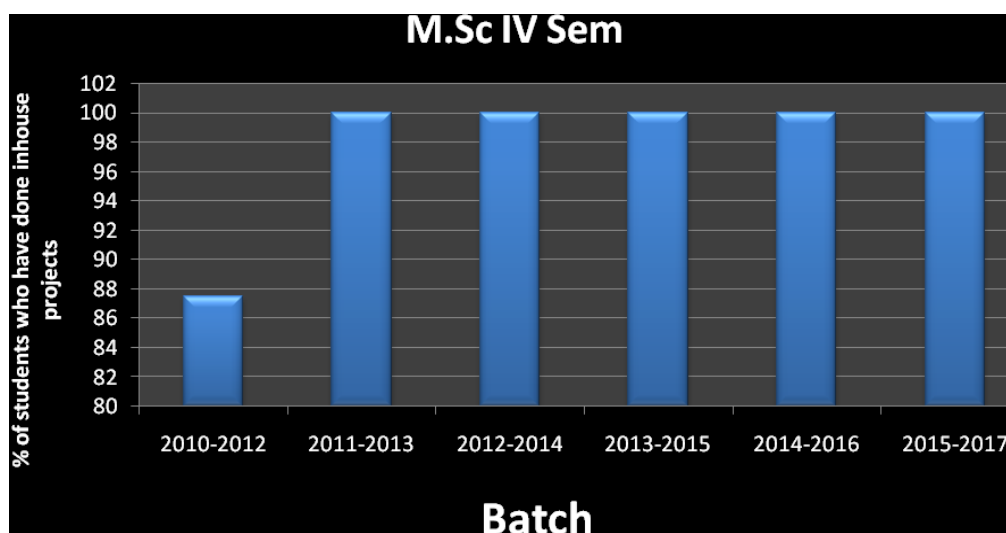
Dr. Elsamma Thomas Varricatt- Faculty of Science, syndicate member and Chief Superintendent for UG and PG examination, Bangalore University

**22. Student projects**

**a) Percentage of students who have done in-house projects including inter Departmental/programme.**

Year	M.Sc
2010-2012	87.5
2011-2013	100
2012-2014	100
2013-2015	100
2014-2016	100
2015-2017	100

### In House Projects



b) Percentage of students placed for projects in organizations outside the institution i.e.in Research laboratories/Industry/ other agencies.

Year	M.Sc
2010-2012	12.5

After the academic year 2012, Department is guiding the projects completely.

### 23. Awards / Recognitions received by faculty and students

Sl. No.	Faculty	Designation	Committees / Boards of
1	Dr. Elsamma Thomas Varricat	Member, Faculty of Science	Bangalore University
		Chief Superintendent	UG and PG Bangalore University
		Former Principal	The Oxford College of Science
		Former Principal	The Oxford College of Arts
		Former Syndicate member	Bangalore University
		Academy Council Member	Bangalore University
		Local Inquiry Committee member	Bangalore University
		Core committee member	Bangalore University
2	Iveen Pinky Y	Governing council Member	Bangalore University and The Oxford College of Science
		Former Ethical committee member	Sri Venkateshwara Institute of Nursing Science

### Students

➤ Ms. Samyuktha Ramesh, Student, III Sem, M.Sc Secured Second Prize in Essay Competition of title "Importance of statistics in Gross route level planning" organized by Directorate of Economics and Statistics (DES).

- Ms. Tejaswini. G and Ms. Sonakshi Rawal received Oxford endowment Fund.
- Mr. Bharath.M.P got the Best Student PG Award in the year 2014
- Ms. Jincy James secured III Rank in M.Sc Statistics, Bangalore University 2016.

#### 24. List of eminent academicians and scientists / visitors to the Department

- **Dr. Prabhanjan N Tattar**  
Business Analysis Advisor  
Dell International Services, Bangalore
- **Dr.J.V Jahnavi**  
Professor, Bangalore University
- **Mr. Anand Rangarajan**  
Product Manager, Google

#### 25. Seminars/ Conferences/Workshops organized & the source of funding:

Conference	Year	Source of Funding
7 <sup>th</sup> Annual KSTA conference on Science, Technology and Productization – A means for growth at The Oxford College of science	5 <sup>th</sup> & 6 <sup>th</sup> Feb 2015	Karnataka Science and Technology Academy
6 <sup>th</sup> National Science Conference Jnanarjana 2K14 at The Oxford College of Science	27 <sup>th</sup> & 28 <sup>th</sup> Mar 2014	Self financed

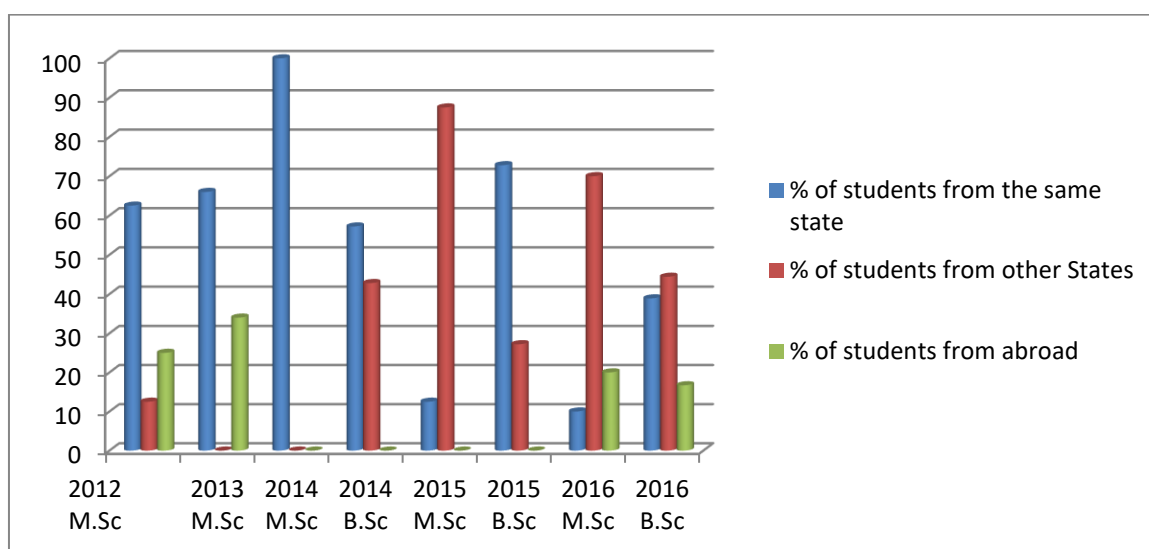
#### 26. Student profile course wise:

Name of the Course/programme (refer question no. 4)	Applications received	Selected	Enrolled		Pass percentage
			*M	*F	
2012 M.Sc	10	8	2	6	12.5
2013 B.Sc	0	0	0	0	0
M.Sc	03	03	01	02	0
2014 B.Sc	07	07	03	04	85.71
M.Sc	03	03	01	02	33.33
2015 B.Sc	12	11	4	7	90
M.Sc	08	08	02	06	12.5
2016 B.Sc	18	18	12	6	NA
M.Sc	11	10	5	5	NA



### 27. Diversity of Students

Name of the Course	% of students from the same state	% of students from other States	% of students from abroad
2012 M.Sc	62.5	12.5	25
2013 M.Sc	66	0	34
2014 M.Sc	100	0	0
B.Sc	57.2	42.8	0
2015 M.Sc	12.5	87.5	0
B.Sc	72.8	27.2	0
2016 M.Sc	10	70	20
B.Sc	38.9	44.4	16.7



28. How many students have cleared national and state competitive examinations such as NET, SLET, GATE, Civil services, Defense services, etc.? None

### 29. Student progression

Student progression	Against % enrolled
UG to PG.	40
PG to M.Phil	0
PG to Ph.D.	0
Ph.D. to Post-Doctoral	0
Employed	
Campus selection	0
Other than campus recruitment	80
Entrepreneurship/Self-employment	10

### 30. Details of Infrastructural facilities

- a) **Library:**30 books
- b) **Internet facilities for Staff & Students:** 557 common computer with internet access  
One computer for office use
- c) **Class rooms with ICT facility:** 01
- d) **Laboratories:** data analytics lab -01

### 31. Number of students receiving financial assistance from College, University, government or other agencies: None

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

#### Workshop

Sl.No	Activity	Resource Person
1	SAS BASE	Epoch Research Institute, Bangalore
2	‘Exploratory Data Analysis using R Statistical software’	Dr. Prabhanjan N. Tattar, Business Analysis Advisor, Dell International Services, Bangalore
3	Scilab and Maxima	P.J Siddeshwar Bangalore University
4	Statistical programming using C++	Ananda K.S. St. Josephs College

#### Guest Lecture:

Sl.No	Activity	Resource Person
1	Emerging trends in Basic sciences	Prof. J.V Jahnavi Professor University of Bangalore
2	National Science Day-Time series	Prof. J.V Jahnavi Professor University of Bangalore
3	Forecasting method SPSS	Ms. Chaithra N Lecturer JSS University, Mysuru.
4	Career opportunities in Statistics	Mr. Vinay Shastry Data Analyst Indegene.

### **33. Teaching methods adopted to improve student learning:**

- Power point presentation
- Group Discussions
- Guest Lectures
- Assignments
- Seminars

### **34. Participation in Institutional Social Responsibility (ISR) and Extension activities:**

- NSS
- Blood donation camps
- Oxford-Marathon
- Community work programs
- Plastic free campus programs
- Eye-check-up programs.

### **35. SWOC analysis of the Department and Future plans:**

#### **Strength**

- Young and energetic faculties with awareness about latest technologies.
- Number of students opting for UG and PG have increased

#### **Weakness**

- Unstable faculty people are finding more opportunity in Industry.
- Deficit of experienced faculty available for teaching.

#### **Opportunities**

- In house projects help the students to enlarge their Analyzing capacity to undertake the bigger project in future.
- Add-on course-SAS (Statistical Analysis System) is introduced in the Department helping the students to emerge in the industry with less competency

#### **Challenges**

- Difficulty to place them for internship in industry.
- Clearing the M.Sc exam in one attempt.

#### **Future Plans**

- To start a research centre
- Improve consultancy services.
- Enhance academia-industry linkages



**THE OXFORD COLLEGE OF SCIENCE**  
 DEPARTMENT OF STATISTICS  
**SANKHYA UTSAV**  
 DATE : 16 April

- \* COLLEGE
- \* QUIZ
- \* MASHAWDI
- \* MAIL ART
- \* BEST MANAGER
- \* IMPROVISE
- \* COOK WITHOUT FIRE
- \* BUNDS CHALLENGE

Faculty coordinator : Ireen Pinky  
 Register with student coordinator  
 Student coordinator : Vidya KS (5722577356)  
 Hurry up for registrations on or before 16 April 2016/ Monday

**Evaluation report of the Department of Fashion and Apparel Design**

**1.Name of the Department** : Fashion and Apparel Design

**2. Year of Establishment**

- UG: 1999
- PG: 2010

**3.Names of Programmes / Courses offered**

- UG programme: B.Sc. Fashion and Apparel Design
- PG programme: M.Sc. Apparel Technology and Management (2010-2014)  
M.Sc Fashion and Apparel Design (2014)

**4.Names of Interdisciplinary courses and the Departments/units involved:**

**UG Soft Core**

- Environmental Studies
- Indian Constitution
- Computer Fundamentals
- Social Culture And Diversity
- Banking and Finance
- Computer applications and Information technology
- Entrepreneurship and Innovation
- Performing Arts
- Community Work
- Personality Development and Leadership

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

- B.Sc FAD - 2011-13: Semester scheme
- M.Sc ATM-2012-14: Semester scheme
- B.Sc FAD 2014- 16: CBCS Semester

**6.Participation of the Department in the courses offered by other Departments:**

The faculty of Department has taken class for other Department students.

For B.Sc –

- Embroidery
- Tie and dye
- Sketching and painting

For M.Sc MBA, MCA, M.Com & MSW

- Open Elective paper: Fashion Design

**7.Courses in collaboration with other Universities, industries, foreign institutions, etc.**

Sl.No	Name	Resource Person	Industry
1	Embroidery workshop	Harsha B	Anchor Threads
2	Jewellery making workshop	Mrs. Jyothi bhusan	Entrepreneur
3	Portfolio	Mrs. Aparna	A designer and entrepreneur
4	Sketching and painting	Seema pandey	Pidilite

8. Details of courses/programmes discontinued (if any) with reasons Nil

9. Number of Teaching posts

Post	Sanctioned	Filled
Professors	01	00
Associate Professors	01	01
Assistant. Professors	03	03

10. Faculty profile with name, qualification, designation, specialization

Name	Qualification	Designation	Specialization	No. of Years of Experience	No. of Ph.D. Students guided for the last 4 years
Dr. V. Narayana Swamy	M.Sc., Ph.D	Associate Professor	Silk Technology	12	Nil
Ms. Raman Deep Kaur	M.Sc	Assistant Professor	Fashion Technology	13	Nil
Ms. Indu G.K	M.Sc., M.B.A. (Ph.D)	Assistant Professor	Apparel Technology and Management	10	Nil
Ms. Pavithra	M.Sc	Assistant Professor	Apparel Technology and Management	2	Nil
Ms. Preethi	M.Sc	Assistant Professor	Apparel Technology and Management	1	Nil
Ms. Swetha	M.Sc	Assistant Professor	Apparel Technology and Management	2	Nil
Prof. Manjula Devi (GL)	M.Sc	Professor	Home Science	35	Nil
Ms. Pragathi (GL)	M.Sc	Assistant Professor	Apparel Technology and Management	1	Nil
Ms. Lija M G George (GL)	M.Tech	Assistant Professor	M.Tech (Textiles)	1	Nil

**11. List of senior visiting faculty:**

S. No	Name of the faculty	Designation /College
1.	Prof. Manjuladevi	Professor-VHD Home Science
2.	Ms. Madhura K.S	Assistant Prof.- ALT College
3.	Ms Lija Thomas	Assistant Prof.- SKSJIT College
4.	Ms. Pragathi	Assistant Prof.- KITE College

**12. Percentage of lectures delivered and practical classes handled (programme wise) by temporary faculty:** Nil for UG & 10% for PG

**13. Student -Teacher Ratio (programme wise)**

**For UG.**

Year	Theory	Practical
2011-12	12:1	10:1
2012-13	15:1	12:1
2013-14	15:1	10:1
2014-15	17:1	15:1
2015-16	18:1	14:1
2016-17	16:1	12:1

**For PG.**

Year	Theory	Practical
2012-13	03:1	03:1

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

Staff	Sanctioned	Filled
Technical Assistant	01	01
Attendee	01	00

**15. Qualifications of teaching faculty with D.Sc/ D.Litt/ Ph.D/ M.Phil /PG:**

Ph.D	M.Phil	M.Sc
01	--	07

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

**17. Departmental projects funded by DST - FIST; UGC, DBT, ICSSR, etc. and total grants received: Nil**

**18. Research Centre /facility recognized by the University: No**

**19. Publications:**

Sl. No.	Name	Publications per faculty
1	Dr. V. Narayana Swamy	11
2	Ms. Indu G.K	02

Sl. No.	Details	Numbers
1	Number of papers published in peer reviewed journals (national /international) by faculty and students (last four years):	11
2	Number of publications listed in International Database	Nil
3	Monographs	Nil
4	Chapter in Books	Nil
5	Books Edited	Nil
6	Books with ISBN/ISSN numbers with details of publishers- Lambert Academic Publishing	02
7	Citation Index	Nil
8	SNIP	Nil
9	SJR	Nil
10	Impact factor	Nil
11	h-index	Nil

**20.Areas of consultancy and income generated:**

Sl. No.	Name of faculty	Academic Consultancy	Year
1	Dr. V. Narayana Swamy	Deputy custodian Paper setting BUB (UG) BOE (UG) Associate Dean of Examinations E-content programmes of the NME-ICT project of MHRD, Govt of India BUB squad	2016-17 2014-15 and 2015-16 2015-16 2012 2011-2012 2011



2	Ms. Indu GK	BOE RVIT Paper setter Mysore University Examiner Bangalore University BOS KSOU BOE Bijapur University	2015-16  2013 till date 2012 2012
3	Ms. Ramandeep Kaur	Deputy Examination Paper setting (NSDC) Assessor (NSDC)	2016-17 2015-16 2015-17

## 21. Faculty as members in

a) National committees b) International Committees) Editorial Board

Sl. No.	Name	Committee	Board
1	Dr. V. Narayana Swamy	Textile committee Textile Research Journal Journal of Medical and Biological Science Research International Journal of Agricultural Policy and Research Indian Journal of Traditional Knowledge	Bangalore University
2	Ms. Indu G.K	Textile committee	Bangalore University Mysore University KSOU KSWOU RVIT
3	Ms. Raman Deep Kaur	NSDC	

## 22. Student projects

a) Percentage of students who have done in-house projects including interDepartmental/ programme: 100

b) Percentage of students placed for projects in organizations outside the institution

Sl. No.	Year	UG
1	2016-17	100

## 23. Awards / Recognitions received by faculty and students:

Sl.no.	Name of the faculty	Details of the Award
1	Dr. V. Narayana Swamy	Dr Triguna Charan Sen Prize by The Institution of Engineers (India). January 2016. Best paper certificate by International J of Engineering Sciences & Research Technology 2016

Awards / Recognitions received by students:

Sl. No.	Details	Name	Number of students
1	Best designer(2015)	Mamtha S	01
2	Deccan herald (2011-2015)	Dept. of Fashion & Apparel Design	04

Sl. No.	Name of the students	Year	Bangalore University Ranks
1	Kavya Y L	2012	9
2	Roopa R	2015	3
3	Dhyan Mohan	2015	7
4	Mamatha S	2016	6

24.List of eminent academicians and scientists / visitors to the Department-

SI No	FACULTY NAME	DESIGNATION
1.	Mr.Somasundaram	Consultant
2.	Mr. K.R Prasad	CEO Design Academy
3.	Ms. Aparna.S	Designer/Entrepreneur
4.	Dr.Ananth krishnana	Professor SKSJIT
5.	Dr.Srinivas prakash	Fashion Consultant & Marketing Head
6.	Dr.Naveen padaki	Scientist Central silk board
7.	Mr.Bhaskar Jagirdar Ms.Ritiks Bargav	CEO
8.	Mrs.Aparna	Designer/Entrepreneur
9.	Mrs.Deepti Gupta	Ass. Prof. NIFT
10.	Mr.Anand Dharwad	NGO
11.	Ms.Hema jain Ms.Preethi	Ass. Prof. NIFT
12.	Mr.Prasad k.r	CEO Design Acadmy
13	Mr.Hemalatha jain	Ass. Prof. NIFT
14.	Mrs.vaidegi krishnan	Specialist in CAD Design
15.	Mr.Rohan Rawat	CEO & Fashion Consultant
16.	Mr.G Somasundaram	Consultant
17.	Mr.Prasad	Entrepreneur
18.	Mrs.Veena	Professor AIFT
19.	Dr.Ramesh	Professor Kumar Guru
20.	Mr.Amruth Kumar Mr.Senthil Kumar	Specialist in CAD Software
21.	Mrs.Jyothi Bhushan	Entrepreneur
22.	Mrs. Seema Pandey	Creative Artist and Proprietor
23	Dr. Hipparagi	Scientist ‘D’

**25.Seminars/ Conferences/Workshops organized & the source of funding –**

National	03	<ul style="list-style-type: none"> <li>➤ Maia Maista</li> <li>➤ Fashionista</li> <li>➤ Deccan Herald</li> </ul>
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**26.Student profile programme/coursewise:**

Name of the Course/programme (refer question no. 4)	Year	Applicati received	Selected	Enrolled		Pass percentage
				*M	*F	
M.Sc ATM	2012-13	3	3	0	3	100
B.Sc. Fashion Designing	2011-12	24	20	5	15	60.5
B.Sc. Fashion Designing	2012-13	27	24	6	18	75
B.Sc. Fashion Designing	2013-14	32	29	6	23	57
B.Sc. Fashion Designing	2014-15	17	15	5	10	69
B.Sc. Fashion Designing	2015-16	29	27	6	21	85
B.Sc. Fashion Designing	2016-17	25	22	5	17	-

\*M = Male \*F = Female

**27.Diversity of Students**

Name of the Course	Year	% of Students from the same state	% of students from other States	% of students from abroad
B.Sc. FAD	2011-12	65	35	0
B.Sc. FAD	2012-13	37.5	62.5	0
B.Sc. FAD	2013-14	48.2	51.8	0
B.Sc. FAD	2014-15	66	34	0
B.Sc. FAD	2015-16	45	55	0
B.Sc. FAD	2016-17	64	36	0
M.Sc ATM	2012-13	0	100	0

**28.How many students have cleared national and state competitive examinations such as NET, SLET, GATE, Civil services, Defense services, etc. Nil**

**29.Student progression**

Student progression	Against % enrolled
UG to PG	10
PG to M.Phil.	0
PG to Ph.D.	NA
Ph.D. to Post-Doctoral	NA

Employed	
• Campus selection	50
• Other than campus recruitment	00
Entrepreneurship/Self-employment	30

### 30.Details of Infrastructural facilities

a) **Library**

Departmental Library books :53

b) **Internet facilities for Staff &Students**-CAD Lab is fully equipped lab with 18 computers and internet facility with specialized software (Reach CAD, Gerber, Reach studio) and Digitizer

c) **Class rooms with ICT facility:**01

d) **Laboratories:**05 Fully equipped Labs

Sl.no	LABS	Name of lab
1	Pattern making lab	Pattern making tables Mannequins Dress forms
2	Textile testing lab	Special equipments for textile testing
3	Sewing lab	Juki machines Singer machines Double needle Overlock Automatic Fashion maker Fashion makers 3D Mirror
4	CAD lab	18 computers with internet facility Special software's- Reach cad , Gerber, Reach studio and Digitizer, Corel Draw, Reach Marketing and Merchandising and Photoshop
5	Design Studio	Drawing Tables

### 31.Number of students receiving financial assistance from College, University, Government or other agencies:

Sl. No.	Course	Source of financial assistance			
		College	University	Government	Others
1	B.Sc.	14	Nil	Nil	Nil

Sl.No	Year	Name of the student	Agency
1	2012	Ranjitha Rajan Kavya YL	The Oxford College
2	2013	Kavya YL Roopa R	The Oxford College

3	2014	Roopa R Leema M	The Oxford College
4	2015	Mamatha S Aneeqa Ayub Khan	The Oxford College
5	2016	Samanvitha BP Toijam Jayatek	The Oxford College
6	2017	Sagar	The Oxford College
7	2014	DH Fashion Show	The Oxford College
8	2015	DH Fashion Show	The Oxford College
9	2016	DH Fashion Show	The Oxford College

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

Sl No	DATE	RESOURCE PERSON NAME	TOPIC
1.	02/09/2012	Mr.Somasundaram	Career opportunities in fashion retail
2.	23/01/2013	Mr. K.R Prasad	Fashion design process to concept
3.	12/01/2013	Ms. Aparna.S	Illustration(with European techniques)
4.	25/02/2013	Dr.Ananth krishnana	Statistics and quality control
5.	14/08/2013	Dr.Srinivas prakash	Challenges in garment industry
6.	07/09/2013	Dr.Naveen padaki	Science of clothing comfort
7.	07/02/2014	Mr.Bhaskar Jagirdar Ms.Ritiks Bargav	Product life cycle management
8.	18/02/2014	Mrs.Aparna	Basic portfolio presentation
9.	18/02/2014	Mrs.Deepti Gupta	Creative surface texture a tool for fashion forward
10.	25/02/2014	Mr.Anand Dharwad	Natural fibre
11.	10/03/2014	Ms.Hema jain Ms.Preethi	Boutique Management
12.	11/08/2014	Mr.Prasad k.r	Fashion design
13.	20/08/2014	Mr.Hemalatha jain	Textile Design
14.	09/01/2015	Mrs.vaidegi krishnan	Cad technology
15.	24/01/2015	Mr.Rohan Rawat	Creative pattern Development
16.	03/09/2015	Mr.G Somasundaram	Indian Fashion Store and online Retailing
17.	14/09/2015	Mr.Prasad	Fashion Design
18.	11/02/2016	Mrs.Veena	History costume
19.	05/04/2016	Dr.Ramesh	Marketing and merchandising
20.	03/10/2016	Mr.Amruth Kumar Mr.Senthil Kumar	Software used in fashion technology
21.	25/10/2016	Mrs.Jyothi Bhushan	Terracotta Jewelry
22.	18/01/2017	Seema Pandey	Madhubani and Warli art
23.	20/01/2017	Seema Pandey	Creative painting techniques
24.	04/02/2017	Dr. Hippargi	Product Development
25.	09/02/2017	Ms. Harshith	Styling and Grooming

**33.Teaching methods adopted to improve student learning:**

- Faculty members use PPT presentation for their lectures
- ICT methodology
- Industrial Visits

- Problem Based Learning
- Seminars, Video Presentations, Group discussions
- In-House projects

#### **34. Participation in Institutional Social Responsibility (ISR) and Extension activities:**

- Best Out of Waste
- Plastic less campus
- Embroidery classes for rural women
- Eco club

#### **35. SWOC analysis of the Department and Future plans**

##### **Strength**

- Well-equipped laboratories
- Experienced faculty
- Organizing workshops and fashion shows
- Getting University Ranks
- High success rates in examinations
- Wide range of extension, co-curricular and extra-curricular activities
- Teaching aids for ICT enabled teaching
- Recognition & Good image

##### **Weaknesses**

- Instable faculties
- Qualified and Industrial background Professionals
- Less exposure to fashion market
- Syllabus not catering to the employability

##### **Opportunities**

- To get University rank every year
- To collaborate with fashion industries
- To explore trend in ever changing fashion market

##### **Challenges**

- To train the students to meet industry expectation.
- Learning the business side of design
- Scarcity of time in semesters
- Campus selection

##### **Future Plans**

**Short term courses:** Training for Boutique management, Retail management, Merchandising, CAD-CAM, Exploring Novel Avenue to cater diverse group.



**Evaluative Report of the Department of English**

**1. Name of the Department:** English

**2. Year of Establishment:** PG:2006

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

- PG: M.A in English

**4.Names of Interdisciplinary courses and the Departments/units involved:**

Name of the Interdisciplinary Course	Departments involved
Media and Society	MSW
Mass Media and Communication	Mass Comm
Management Perspective	MBA
Fashion and Apparel Design	FAD
Social movement and action	MSW
Banking and finance	M.Com
Applied Biotechnology	BT

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

PG- MA English: CBCS

**6.Participation of the Department in the courses offered by other Departments:**

Courses in Open Electives- (PG) Write it Right

**7. Collaboration with other universities, industries, foreign institutions, etc.:** Nil

**8.Details of courses/programmes discontinued (if any) with reasons:** Nil

**9. Number of Teaching posts**

Designation	Sanctioned	Filled
Professors	2	2 (guest faculty through sister concern The Oxford College of Arts)
Associate Professors	-	-
Assistant Professors	3	3 (guest faculty through sister concern The Oxford College of Arts)



**10. Faculty profile with name, qualification, designation, specialization, (D.Sc./D.Litt. /Ph.D. / M. Phil. Etc.,)**

Name	Qualification	Designation	Specialization	No. of Years of Experience	No. of Ph.D. Students guided for the last 4 years
Dr.Sharada Ajit	MA,M.Phil,S LET,Ph.D, Diploma in Creative Writing	Professor	Indian Writing in English,Ameri can Literature	22 years	1 Ph.D Student 2 M. Phil Students
Mr.S Murgavel	MA,M.Phil,B. Ed	Associate Professor	Indian Writing in English	34 years	-
Ms. Padmalatha	MA,M.Phil, NET	Asst. Professor	Indian Writing in English	17 years	-
Ms.Aditi S	M.A., M.Phil.	Asst. Professor	Indian Literature	7 years 3 months	-
Ms Nida Syeda	MA	Asst. Professor	Indian Writing in English	1 year 7 months	-

**11.List of senior visiting faculty. Nil**

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

**100%.** All the guest faculty are from The Oxford College of Arts which is a sister concern based in the same campus.

**14. Student -Teacher Ratio (programme wise)**

Course	Ratio
MA	1:5

**14.Number of academic support staff (technical) and administrative staff; sanctioned and filled: Nil**

**15.Qualifications of teaching faculty with DSc/ D.Litt/ Ph.D/ MPhil / PG:**

Faculty with M.Phil	Faculty with Ph.D	Faculty with MA
03 (guest faculty)	01 (guest faculty)	01 (guest faculty)

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

**17. Departmental projects funded by DST - FIST; UGC, DBT, ICSSR, etc. and total grants received:** Nil

**18. Research Centre /facility recognized by the University:** Nil

**19. Publications:**

Number of papers published in peer reviewed journals (national / international) by faculty and students:	National: 2
	International: 1
Number of publications listed in International Database	1
Monographs	-
Chapter in Books	-
Books Edited	Book - AATISH - Sensitising Sentient Sentiments
Books with ISBN/ISSN numbers with details of publishers	Book- AATISH - Sensitising Sentient Sentiments. ISBN - 978-81-924763-5-3 Publisher - ON FIRE PUBLICATIONS
Citation Index	-
SNIP	-
SJR	-
Impact factor	-
h-index	-

**20. Areas of consultancy and income generated:**

Name	Areas of consultancy
<b>Dr. Sharada Ajit</b>	Member of BOE Member of Syllabus/text book committee of Bangalore University M.Phil Examinar Ph.D guide Resource person for invited lecture Member BOS-National College

**21. Faculty as members in, National Committees, International Committees, Editorial Boards:**

Name	National Committees, International Committees, Editorial Boards
Dr. Sharada Ajit	Member of Indian Association of Commonwealth Literature and Language Studies, Shakespeare Society of Eastern India, Bangalore International Centre

**22. Student projects:** Nil

**23 Awards / Recognitions received by faculty and students:**

Dr. Sharada Ajit The Best Teacher Award by The Oxford Educational Institutions in 2010.

**24. List of eminent academicians and scientists / visitors to the Department:** Nil

**25. Seminars/ Conferences/Workshops organized & the source of funding.**

**National:** Workshop on Effective Spoken Skills – October 2011

**26. Student profile programme/course wise:**

Name of the Course/programme (refer question no. 4)	Applications received	Selected	Enrolled		Pass percentage %
			*M	*F	
MA 2013	1	1	NIL	1	100%
MA 2014	5	5	NIL	5	80%
MA 2015	4	4	NIL	4	NA
MA 2016	2	2	1	1	NA

**27. Diversity of Students**

Name of the Course	% of students from the same state	% of students from other States	% of students from abroad
MA 2013	100%	NIL	NIL
MA 2014	20%	80	NIL
MA 2015	50%	50	NIL
MA 2016	80%	20	NIL

**28. How many students have cleared national and state competitive examinations such as NET, SLET, GATE, Civil services, Defense services, etc. : Nil**

**29. Student progression**

Student progression	Against % enrolled
UG to PG	NA
PG to M.Phil.	Nil
PG to Ph.D.	Nil
Ph.D. to Post-Doctoral	NA
Employed Campus selection Other than campus recruitment	3
Entrepreneurship/Self-employment	Nil

**30. Details of Infrastructural facilities**

- **Library**-100 books
- **Internet facilities for Staff & Students** - Available
- **Class rooms with ICT facility**- 01
- **Laboratories: English Lab/Software:** Cambridge Advanced Learners Application
  - No of systems and headphones: 45
  - Capacity: 45 Students

**31.Number of students receiving financial assistance from College, University, government or other agencies: Nil**

**32.Details on student enrichment programmes (special lectures / workshops / seminar) with external experts- Nil**

**33.Teaching methods adopted to improve student learning:**

- Interactive Classes
- Role Plays
- Presentations
- Reading Sessions
- Writing Sessions
- Group Discussions

**34.Participation in Institutional Social Responsibility (ISR) and Extension activities – Nil**

### **35. SWOC analysis of the Department and Future plans**

#### **Strength**

- A well equipped Department library for students' use.
- The best infrastructural support
- High success rates in examinations
- Wide range of co-curricular and extra-curricular activities

#### **Weakness**

- Low student strength
- Limited exposure

#### **Opportunities**

- Placement in Private and Government sectors
- Promising academic career

#### **Challenges**

- Keeping pace with the rapid changes in higher education
- Sustaining and upgrading quality of teaching and research.
- To motivate the students to pursue English at the postgraduate level

#### **Future Plans**

- Enhancing job-oriented skills of students such as paper presentation, group discussions, peer group interactions, etc
- To publish research papers in National and International journals



## POST ACCREDITATION SUMMARY

The first Cycle of accreditation of the Oxford College of Science, in 2010 added more impetus to the Quality sustenance & Enhancement. Keeping in mind the peer team recommendations, the following initiatives were taken in certain areas desirable either to enhance quality or to maintain the existing standards by further strengthening it.

### 1) The faculty members need to collaborate with other institutions for increasing teaching and research capabilities.

The Bangalore University has granted recognition to 4 Departments (Biotechnology, Microbiology, Biochemistry & Computer Science & application) of the college as Research Centers. The College's Research Committee under the Dean-Research identifies and initiates collaborations in the form of MOU's/agreements on the need basis. These initiatives has paved way for collaborative research. As an outcome of collaborative research, many faculty and students have published papers in National & International journals. (Refer annexure 3.7.5h) Further, the college has applied for incubation center to strengthen the collaborative research.

#### Collaborative activities enhancing teaching and reasearch

Department	Collaboration	Activity
Microbiology	IIT Guwahati	Lecture Workshop (Nanotechnolgy)
	Aristogene	Workshop (PCR Techniques)
	IISc	Lecture Workshop( GMO)
Biochemistry	Col Parmer India PVT. Ltd.	Workshop(Pico SPIN NMR)
	IKA India Pvt. Ltd.,	Workshop (Phytochemical analysis)
	Eppendorf India Limited	Worshop( DNA amplification by PCR)
Biotechnology	DST, New Delhi	Workshop (Research Proposal)
	DBT, New Delhi	FDP workshop (Advances in Invitro cell culture & functional applications)
Electronics	Sparsha Technologies	Workshop (Virtual lab)
	LIVEWIRE	Workshop (PCB Design & VLSI)
	Nihon Communications	Workshop (Wireless Communications)
Physics	ISRO	Workshop (Space Technology)
	IIT, Mumbai	Workshop (Robotics)

Computer Science and Applications	IIT, Mumbai	Workshop (PHP, MY SQL, Android)
	Triad Square Infosecurity Pvt. Ltd.,	Workshop(IT Security)
	Computer science research Insitute India Pvt. Ltd.,	Workshop(Big data analysis)
	Lara Technologies	Workshop(Hadoop Technology)
Genetics	Medgenome & HCG	Workshop- FISH, Lymphocyte culture, Karyotyping,
	3i molecular Solution	Workshop (Microarray, Screening for Cervical cancer)
Mathematics	IIT, Mumbai	ARK Techno Solutions & Helios
	Bangalore University	Workshop (Scilab)
The Oxford college	NIMHANS	Workshop (Mental well being)
	ISRO	Mars orbit Mission
FAD	Pedilite industries- Fevicryl	Workshop (Warli painting & Madhubani Painting)
	Sona College of Technology, Coimbatore	Apparel quality Assurance
	Pearl Academy, Chennai	Workshop (Designing tools)
	NIFT, New Delhi	Workshop (Creative surface texture)
English	Deccan Herald	Workshop (Life Skills)
Statistics	INQURA	Workshop (SAS, SPSS)
Chemistry	Sigma Aldrich	Workshop(Laboratory Safety and Green Chemistry)
	Bangalore Iniversity	Molecular modelling

The above events are conducted by eminent personalities from the institutes and industry, which help the faculty and students to increase skills and competency. The College has MoU's with various industries for placing the students of PG Diploma as interns (Refer 3.7.2). There has been a gradual increase in the research activities, wherein more funds were received for sponsored projects (Refer 3.2.7).

- 2) **Participation in national, international level academic seminars and conferences and publication of papers in refereed academic journals may be further encouraged**



To address this, the college has taken initiatives to encourage faculty to publish/participate in academic related activities by providing incentives for each publication and sanctioning OOD with reimbursement of registration fees. Additionally, the Dean-Research scouts for various notifications related to seminars, conferences and workshops and intimate faculty through mails.

The college also holds many state and national level conferences, workshops and seminars regularly to fortify the academic acumen. To cite a few

- 09 national conference
- More than 50 workshops
- 66 lectures by eminent speakers
- 102 publications in peer reviewed international research journals
- 39 publications with citation index
- 21 publications with SJR
- 50 publications with impact factor

### **3) More opportunities may be provided for students' extra-curricular activities**

To augment holistic development of students, the following measures were initiated:

- Providing a dedicated Physical Education Director, Cultural Co-ordinator, Student Welfare Officer and Co-ordinator for co-curricular activities
- Providing facility for conducting indoor and outdoor sports like chess, carom, table tennis, badminton, volley ball, throw ball, basket ball, hand ball etc.
- Providing access to the ground adjoining the college for outdoor track and ground events.
- Including activities like Aerobics, Zumba and Yoga as fitness programs for co-curricular activities.
- Conducting annual sports meet
- Providing fee concession for Sports Champions and considering attendance for the participants.
- Arranging coaching classes from professional artists and choreographers for participating in inter-collegiate fests
- Providing auditorium lounge or seminar hall for rehearsing

As an outcome of the encouragement and initiatives, the students represented our country in dodge ball, throw ball, gymnastics and also in cultural activities like Dollu kunitha and won laurels to the institution. The Department of Fashion and Apparel Design is very well recognized in Bengaluru and the famous national daily Deccan herald have partnered with the Department for conducting the Fashion show every year consistently from last five years. The details of extra-curricular activities are depicted in 5.3.2

**4) Canteen facility may be upgraded.**

Well furnished 200 seating capacity hygienic canteen is set up with food at subsidized rates.

**5) Job oriented add-on Diploma courses may be introduced**

Job oriented Add-on programs on CADD and MMD, SAS and SPSS and PG Diploma course in Cellular and Molecular Diagnostics are introduced

**6) Career guidance and placement service be strengthened**

Career guidance cell has been introduced to provide seamless service to students. The following are some services provided:

- Career guidance from industry experts
- Overseas opportunities for higher studies
- On campus placement
- Logistics for attending job fairs
- Display of advertisement for job opportunities
- Pre-placement activities

Details of these are added as annexure 5.1.9 a

**7) Courses on development of Entrepreneurship and communication skills may be introduced**

- Entrepreneurship development cell is in place and conducts Entrepreneurship development programs to instill entrepreneur activities in students and faculty
- Enrichment programs leading to entrepreneurship avenues such as mushroom cultivation, wine preparation, bio gas production, app development, web page development, PCB board designing, content development etc are conducted.
- Language lab with WORDSWORTH software usage has been increased to hone students' communication skills
- Pre-placemnet activities focus on soft skills development among students.
- The instrumentation facility of the college is extended to the outside entrepreneurial aspirants to incubate their Proof of concept (POC) on mutually agreed terms and conditions.

**8) E resources and journals in various disciplines may be increased.**

- Journal Numbers have increased from previous cycle (28 to 94)
- Subscription to INFLIBNET , DELNET, IEEE is added and updated to facilitate research culture in campus.
- Inter Institutional library sharing facility is encouraged.

**9) Efforts be made to include project work in PG syllabi**

- Project work for PG Programs are effectively introduced under CBCS scheme
- Departments are recognised as R & D centre from Bangalore University. Most of the PG students carry out their research in the Departments.
- In-house projects extended to UG students
- Inter Institutional Research with sister concern colleges have increased.
- Institution-Industry interface have increased due to BTFS program that helps students to carry out short term project/interns in industries.

The Oxford college of Science, has always given importance for Quality initiatives and hence in addition to the recommendations of the Peer Team, the college has undertaken certain quality sustaining and enhancement measures to uphold standards in the organization. Some of the initiatives taken include:

- Drafting institutional policies such as (i) Admission and Administrative policy (ii) Teaching, Learning and Evaluation policy (iii) Research, Development and Sustenance policy (iv) Human Resource and Placement policy (v) Student Welfare policy (v)Up-gradation and procurement policy (vi) Inclusive policy (vi) Computer usage policy (vii) Network policy (viii) Consultancy policy
- Dedicated Parent Relation Officer to strengthen networking with the stakeholders to impart best deliverables
- Holding Strategy Meet in the beginning of every academic year for efficient planning
- Conducting Academic audit annually
- Effective Feedback mechanism



Children's Education Society ( Regd.)

## The Oxford College of Science

(Recognised by the Govt. of Karnataka, Permanently Affiliated to Bangalore University & Approved by AICTE, New Delhi)

Accredited by NAAC with 'A' Grade & International Accreditation Organization (IAO)

Recognised by UGC under section 2(f) & 12(B)

Date:16.02.2017

### DECLARATION BY THE HEAD OF THE INSTITUTION

I certify that that the data included in this Self-Study Report (SSR) are true to the best of my knowledge.

This SSR is prepared by the institution after internal discussions, and no part thereof has been outsourced.

I am aware that the Peer team will validate the information provided in this SSR during the peer team visit.

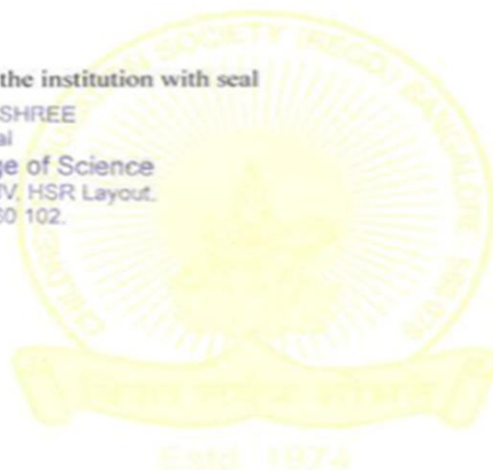
  
Signature of the Head of the institution with seal

Dr. R. KAVYASHREE  
Principal

The Oxford College of Science  
17th 'B' Main, Sector-IV, HSR Layout,  
Bangalore-560 102.

Place: Bangalore

Date: 16.02.2017



Compliance Certificate



Children's Education Society ( Regd.)

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Date:16.02.2017

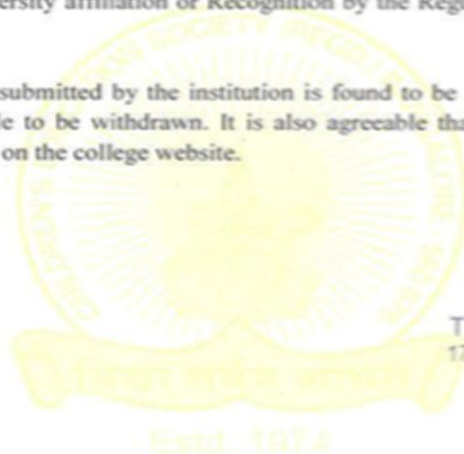
### CERTIFICATE OF COMPLIANCE

This is to certify that The Oxford College of Science, Bangalore fulfils all norms

1. Stipulated by the affiliating University and
2. Regulatory Council/Body [such as UGC, AICTE] and
3. The affiliation and recognition is valid as on date.

It is noted that NAAC's accreditation, if granted, shall stand cancelled automatically, once the institution loses its University affiliation or Recognition by the Regulatory Council, as the case may be.

In case the undertaking submitted by the institution is found to be false then the accreditation given by NAAC is liable to be withdrawn. It is also agreeable that the undertaking given to NAAC will be displayed on the college website.




  
Signature

Dr. R. KAVYASHREE  
Principal

The Oxford College of Science  
17th 'B' Main, Sector-IV, HSR Layout,  
Bangalore-560 102.

Affiliation Certificate:



**ಬೆಂಗಳೂರು ವಿಶ್ವವಿದ್ಯಾಲಯ**

ಸಂಖ್ಯೆ: ಎಸಿಎ-3/ಎ3/ಸಂ.ಸ/2016-17

ಜ್ಞಾನಭಾರತಿ  
ಬೆಂಗಳೂರು-560 056  
ದಿನಾಂಕ: 27-6-2016

**ಅಧಿಸೂಚನೆ**

**ವಿಷಯ : 2016-17ನೇ ಶೈಕ್ಷಣಿಕ ಸಾಲಿಗೆ ಸಂಯೋಜನೆ ಸಮೀಕರಿಸುವ ಬಗ್ಗೆ.**

\* \* \*


ಕರ್ನಾಟಕ ರಾಜ್ಯ ವಿಶ್ವವಿದ್ಯಾಲಯಗಳ ಅಧಿನಿಯಮ 2000ದ 59ನೇ ಪ್ರಕರಣದ 17ನೇ ಉಪಬಂಧದಲ್ಲಿ ಪ್ರದತ್ತವಾದ ಅಧಿಕಾರದನ್ವಯ ಬೆಂಗಳೂರು ವಿಶ್ವವಿದ್ಯಾಲಯವು, 2016-17ನೇ ಸಾಲಿಗೆ ಬೆಂಗಳೂರಿನ **ದಿ ಆಕ್ಸ್‌ಫರ್ಡ್ ಕಾಲೇಜ್ ಆಫ್ ಸೈನ್ಸ್**, ನಡೆಸುತ್ತಿರುವ ಕೆಳಕಂಡ ಕೋರ್ಸುಗಳಿಗೆ/ಕೋರ್ಸುಗಳಿಗೆ ಈ ಕೆಳಕಂಡ ಪರತಿಗೊಳಪಟ್ಟ ಸಂಯೋಜನೆಯನ್ನು ಸಮೀಕರಿಸಿ ಮುಂದುವರಿಸಿದೆ.

ಕೋರ್ಸು	ವಿಷಯ	ವಿದ್ಯಾರ್ಥಿ ಪ್ರಮಾಣ	
<b>ಬಿ.ಎಸ್ಸಿ.</b>	ಸೂಕ್ಷ್ಮಜೀವಶಾಸ್ತ್ರ ಗಣಿತ	ಪ್ರಾಣಿಶಾಸ್ತ್ರ ಬೀವರಸಾಯನಶಾಸ್ತ್ರ * ವಿದ್ಯುನ್ಮಾನ ಗಣಕವಿಜ್ಞಾನ*	40(ನಲವತ್ತು) 240(ಇನ್ನೂರ ನಲವತ್ತು)
	ಜೀವತಂತ್ರಜ್ಞಾನ ಛೇತಶಾಸ್ತ್ರ	ಪ್ರಾಣಿಶಾಸ್ತ್ರ ರಸಾಯನಶಾಸ್ತ್ರ * ಗಣಿತ ವಿದ್ಯುನ್ಮಾನ*	240(ಇನ್ನೂರ ನಲವತ್ತು) 30(ಮೂವತ್ತು)
	ಛೇತಶಾಸ್ತ್ರ	ಗಣಿತ ಗಣಕವಿಜ್ಞಾನ*	120(ನೂರ ಇಪ್ಪತ್ತು)
	ಸೂಕ್ಷ್ಮಜೀವಶಾಸ್ತ್ರ ಜೀವತಂತ್ರಜ್ಞಾನ	ರಸಾಯನಶಾಸ್ತ್ರ ಪ್ರಾಣಿಶಾಸ್ತ್ರ * ತಳಶಾಸ್ತ್ರ ರಸಾಯನಶಾಸ್ತ್ರ *	120(ನೂರ ಇಪ್ಪತ್ತು) 240(ಇನ್ನೂರ ನಲವತ್ತು)
	ಫ್ಯಾಷನ್ ಆಂಡ್ ಆಪೇರಲ್ ಡಿಸೈನ್ *		60(ಅರವತ್ತು)
	ತಳಶಾಸ್ತ್ರ	ಜೀವತಂತ್ರಜ್ಞಾನ ಬೀವರಸಾಯನಶಾಸ್ತ್ರ *	120(ನೂರ ಇಪ್ಪತ್ತು)
	ತಳಶಾಸ್ತ್ರ	ಸೂಕ್ಷ್ಮಜೀವಶಾಸ್ತ್ರ ಬೀವರಸಾಯನಶಾಸ್ತ್ರ *	120(ನೂರ ಇಪ್ಪತ್ತು)
	ಸಂಖ್ಯಾಶಾಸ್ತ್ರ	ಗಣಿತ ಗಣಕವಿಜ್ಞಾನ *	120(ನೂರ ಇಪ್ಪತ್ತು)
	<b>ಬಿ.ಸಿ.ಎ.</b>	ವಿಶ್ವವಿದ್ಯಾಲಯದ ಪರಿನಿಯಮಾವಳಿಯಂತೆ *	200(ಇನ್ನೂರು)
	<b>ಎಂ.ಎಸ್ಸಿ</b>		ಬೀವರಸಾಯನಶಾಸ್ತ್ರ
		ಜೀವತಂತ್ರಜ್ಞಾನ	60(ಅರವತ್ತು)
		ಸೂಕ್ಷ್ಮಜೀವಶಾಸ್ತ್ರ	60(ಅರವತ್ತು)
		ತಳಶಾಸ್ತ್ರ	30(ಮೂವತ್ತು)
		ಗಣಿತ	50(ಐವತ್ತು)
		ರಸಾಯನಶಾಸ್ತ್ರ	40 (ನಲವತ್ತು)
		ಸಂಖ್ಯಾಶಾಸ್ತ್ರ	20 (ಇಪ್ಪತ್ತು)
		ಆಪರೇಟ್ ಟೆಕ್ನಾಲಜಿ ಮ್ಯಾನೇಜ್‌ಮೆಂಟ್	20 (ಇಪ್ಪತ್ತು)
		ವಿದ್ಯುನ್ಮಾನ ವಿಜ್ಞಾನ	20 (ಇಪ್ಪತ್ತು)
		ಗಣಕ ವಿಜ್ಞಾನ	20 (ಇಪ್ಪತ್ತು)
<b>ಎಂ.ಎ.</b>		ಫೌತಶಾಸ್ತ್ರ	20 (ಇಪ್ಪತ್ತು)
		ಇಂಗ್ಲೀಷ್	20 (ಇಪ್ಪತ್ತು)

\* ಆಕ್ಸ್‌ಫ್ ಗುರುತುಳ್ಳ ಕೋರ್ಸುಗಳು 2012-13ನೇ ಸಾಲಿನಿಂದ 2016-17ನೇ ಸಾಲಿನವರೆಗೆ ಐದು ವರ್ಷಗಳ ಅವಧಿಯ ಕಾರ್ಯಕ್ರಮ ಸಂಯೋಜನೆಯನ್ನು ಹೊಂದಿದೆ. ವಿ.ವಿ. ಅಧಿಸೂಚನೆ ಸಂಖ್ಯೆ:ಎಸಿಎ-3/ಎ3/ ಕಾಸಂ./ TOCS/2011-2012 ದಿನಾಂಕ: 03-11-2012.

**ವಿ.ಸೂ:** 2016-17ನೇ ಸಾಲಿನ ಶೈಕ್ಷಣಿಕ ವಿಚಾರಣಾ ಸಮಿತಿಯ ವರದಿಯನ್ನು ಲಗತ್ತಿಸಿದೆ. ಕಾಲೇಜುಗಳಿಗೆ ಸಂಶೋಧನೆ ವಿಭಾಗವಿಲ್ಲದ ವಿಶ್ವವಿದ್ಯಾಲಯದೊಂದಿಗೆ ಮಾತ್ರ ಸಂಯೋಜನೆಯನ್ನು ಸಮೀಕರಿಸಲಾಗಿದೆ. ಕಾಲೇಜು 15 ದಿನಗಳ ಒಳಗಾಗಿ ಶೈಕ್ಷಣಿಕ ವಿಚಾರಣಾ ಸಮಿತಿಯ ವರದಿಯಲ್ಲಿ ನಮೂದಿಸಿರುವ ಕೋರ್ಸುಗಳನ್ನು ಸಂದರ್ಶಿಸಿಕೊಂಡು ಉತ್ತಮ ಪಡಿಸಿಕೊಂಡಿರುವ ಬಗ್ಗೆ ಹಾಗೂ ನ್ಯೂನತೆಗಳನ್ನು ಸರಿಪಡಿಸಿಕೊಂಡಿರುವ ಕುರಿತು ಅನುಸರಣಾ ವರದಿಯನ್ನು ನೀಡಬೇಕೆಂದು. ಇಲ್ಲವಾದಲ್ಲಿ ಮುಂದಿನ ಶೈಕ್ಷಣಿಕ ವರ್ಷದ ಸಂಯೋಜನಾ ಸಮೀಕರಣದ ಅರ್ಜಿಯನ್ನು ಸ್ವೀಕರಿಸಲಾಗುವುದಿಲ್ಲ.

Affiliation Certificate of MCA:



**ಬೆಂಗಳೂರು ವಿಶ್ವವಿದ್ಯಾಲಯ**  
 ಸಂಸ್ಥಾನಿಕ-3/ಎ3/ಎಂ.ಉ/ಎಂ.ಉ.ಎ/ಸಂ.ಸ/2016-2017

ಪ್ರಾಚಾರ್ಯ  
 ಬೆಂಗಳೂರು-56  
 ದಿನಾಂಕ 24-11-2016

**ಅಧಿಸೂಚನೆ**

ವಿಷಯ: 2016-17ನೇ ಶೈಕ್ಷಣಿಕ ಸಾಲಿಗೆ ಎಂ.ಉ.ಎ ಮತ್ತು ಎಂ.ಉ.ಎ ಕೋರ್ಸುಗಳಿಗೆ ಸಂಯೋಜನೆ ಸವಿಕರಿಸುವ ಬಗ್ಗೆ.

ಉಲ್ಲೇಖ: 1. ಸರ್ಕಾರದ ಅಧಿಸೂಚನೆ ಸಂಖ್ಯೆ: ಇಡಿ 121 ಟಿ.ಇ.ಸಿ. 2016 ದಿನಾಂಕ 23-07-2016 (ಕರ್ನಾಟಕ ಪಂಚಾಂಗ ಪ್ರಾಧಿಕಾರದ ವೆಬ್‌ಸೈಟ್‌ನಲ್ಲಿ ಪ್ರಕಟಿಸಿರುವ ಸೀಟ್ ಮ್ಯಾಟ್ರಿಕ್ಸ್‌ನಂತೆ).  
 2. ಕುಲಪತಿಯವರ ಆಮರೋದನೆ ದಿನಾಂಕ 24-11-2016.

ಕರ್ನಾಟಕ ರಾಜ್ಯ ವಿಶ್ವವಿದ್ಯಾಲಯಗಳ ಅಧಿನಿಯಮ 2000ರ 59ನೇ ಪ್ರಕರಣದ 17ನೇ ಉಪಬಂಧದಲ್ಲಿ ಪ್ರದತ್ತವಾದ ಅಧಿಕಾರದನ್ವಯ ಬೆಂಗಳೂರು ವಿಶ್ವವಿದ್ಯಾಲಯವು ಈ ಕೆಳಗೆ ನಮೂದಿಸಿರುವ ಕಾಲೇಜುಗಳಿಗೆ ಅವುಗಳಲ್ಲಿ ಅಸ್ತಿತ್ವದಲ್ಲಿರುವ ಎಂ.ಉ.ಎ ಮತ್ತು ಎಂ.ಉ.ಎ ಕೋರ್ಸುಗಳಿಗೆ ಈ ಕೆಳಕಂಡ ಪದ್ಧತಿಗೊಳಿಸಿ 2016-17ನೇ ಶೈಕ್ಷಣಿಕ ಸಾಲಿಗೆ ಸಂಯೋಜನೆಯನ್ನು ಸವಿಕರಿಸಿ ಮುಂದುವರಿಸಿದೆ.

ಕ್ರ.ಸ	ಕಾಲೇಜಿನ ಹೆಸರು ಮತ್ತು ವಿಳಾಸ	ಕೋರ್ಸು	ವಿದ್ಯಾರ್ಥಿ ಪ್ರಮಾಣ
1.	ಎ.ಎಂ.ಸಿ. ಕಾಲೇಜು, 18ನೇ ಕಿ.ಮೀ. ಬನ್ನೇರುಘಟ್ಟ ರಸ್ತೆ, ಬೆಂಗಳೂರು-83	ಎಂ.ಉ.ಎ. ಎಂ.ಉ.ಎ.	240(ಇನ್ನೂರ ನಲವತ್ತು) 120 (ನೂರ ಇಪ್ಪತ್ತು).
2.	ಆಪ್ತಯೋಜನೆ ಬೆಂಗಳೂರು ಬಿ ಸ್ಕೂಲ್, ಶಿಂಗರನಹಳ್ಳಿ, ಮಾಗಡಿ ಮುಖ್ಯರಸ್ತೆ, ಬೆಂಗಳೂರು-091	ಎಂ.ಉ.ಎ.	240(ಇನ್ನೂರ ನಲವತ್ತು)
3.	ಆದರ್ಶ ಇನ್ಸ್ಟಿಟ್ಯೂಟ್ ಆಫ್ ಮ್ಯಾನೇಜ್‌ಮೆಂಟ್ ಅಂಡ್ ಇನ್ಫಾರ್ಮೇಷನ್ ಟೆಕ್ನಾಲಜಿ, ಸಂ.75, 5ನೇ ಮುಖ್ಯರಸ್ತೆ, ಚಾಮರಾಜನಗರ, ಬೆಂಗಳೂರು-18	ಎಂ.ಉ.ಎ. ಎಂ.ಉ.ಎ.	180(ನೂರ ಎಂಭತ್ತು) 30 (ಮೂವತ್ತು)
4.	ಅದಿತ್ಯ ಇನ್ಸ್ಟಿಟ್ಯೂಟ್ ಆಫ್ ಮ್ಯಾನೇಜ್‌ಮೆಂಟ್ ಸ್ಟಡೀಸ್ ಅಂಡ್ ರಿಸರ್ಚ್, 12, ಕೋಟಿಲು ಮುಖ್ಯರಸ್ತೆ, ಅಸ್ತವುರ್ಕೇಶ್ವರಿ ದೇವಸ್ಥಾನದ ಹಿಂಭಾಗ, ಬೆಂಗಳೂರು-560 064.	ಎಂ.ಉ.ಎ.	120 (ನೂರ ಇಪ್ಪತ್ತು)
5.	ಎ.ಪಿ.ಎಂ.ಎಸ್. ಇನ್ಸ್ಟಿಟ್ಯೂಟ್ ಆಫ್ ಪ್ರೈಯರ್ ಎಜುಕೇಷನ್ (ಹಿಂದಿನ ಹೆಸರು ಆಚಾರ್ಯ ಇನ್ಸ್ಟಿಟ್ಯೂಟ್ ಆಫ್ ಮ್ಯಾನೇಜ್‌ಮೆಂಟ್ ಅಂಡ್ ಸೈನ್ಸ್), 1ನೇ ಅಡ್ಡರಸ್ತೆ, 1ನೇ ಹಂತ, ಹಿಣ್ಣು, ಕೈಗಾರಿಕಾ ನಗರ, ಬೆಂಗಳೂರು -56	ಎಂ.ಉ.ಎ.	60 (ಆರವತ್ತು)
6.	ಆಲ್-ಆರಿಯನ್ ಇನ್ಸ್ಟಿಟ್ಯೂಟ್ ಆಫ್ ಮ್ಯಾನೇಜ್‌ಮೆಂಟ್ ಸ್ಟಡೀಸ್, ಹೊಸನೂರು ರಸ್ತೆ, ಬೆಂಗಳೂರು-27	ಎಂ.ಉ.ಎ.	120 (ನೂರ ಇಪ್ಪತ್ತು)
7.	ಆಲ್-ಆರಿಯನ್ ಇನ್ಸ್ಟಿಟ್ಯೂಟ್ ಆಫ್ ಇನ್ಫಾರ್ಮೇಷನ್ ಸೈನ್ಸ್, ಹೊಸನೂರು ರಸ್ತೆ, ಬೆಂಗಳೂರು-27.	ಎಂ.ಉ.ಎ.	60 (ಆರವತ್ತು)

ಎಂ.ಉ.ಎ/ಎಂ.ಉ.ಎ/ಸಂ.ಸ/2016-17 - 1 -

Affiliation Certificate of PG Diploma

BANGALORE UNIVERSITY



No. Aca-3: Ren:2016-17

Jnanabharathi,  
Bangalore-56.  
Date:18-01-2016

MEMORANDUM

**Sub:** Submission of affiliation applications to seek affiliation for to one year P.G. Diploma Bio Technology Finishing School (BTFS) program for the academic year 2015-16-reg.

**Ref:** 1. Letter No.KBITS/44/BFC/2015-16 Dated:30-11-2015 from the Principal Secretary, Dept. of IT, BT and S&T, Government of Karnataka, Bangalore.  
2. The resolutions of the Academic Council at its meeting held on 30-12-2015.

As per the letter cited at ref.(1) and as per the resolutions of the Academic Council at its meeting held on 30-12-2015 (ref.2), the following colleges are permitted to obtain and for submission of applications for affiliation to one year P.G. Diploma Bio Technology, Finishing School (BTFS) program for the year 2015-16:

1. Dayanada Sagar Institutions, Bangalore.
2. Maharani Lakshmi Ammanni College for Women, Bangalore.
3. Padmashree Institute of Management and Sciences, Bangalore.
4. The Oxford College of Science, Bangalore.

The above college may obtain the additional course affiliation application form, from the **Office of the Co-ordinator**, Prasaranga Sales Unit, Palace Road, Bangalore, on payment of application fee of Rs. 1,000/- through D.D. drawn in favour of the 'Finance Officer, Bangalore University, Bangalore-560 056'. They have to submit the filled in affiliation application in eight sets with originals with a late fee of Rs.5,000/- along with the prescribed affiliation fee of Rs.12,000/- in the form of DD drawn in favour of 'Finance Officer, Bangalore University, Bangalore' (to be remitted by the college to the University funds on the day of submission of application at the DD collection centre of the Finance Branch of the University) within seven days of the receipt of this letter.

To,  
The Principals of the above Colleges.



REGISTRAR


P.T.O.



2f and 12b certificate

Ph. 23236351, 23232701, 23237721  
23234116, 23235733, 23232317  
23236735, 23239437, 23239627

Extension No. 413 (CPP-I Colleges)  
UGC Website: [www.ugc.ac.in](http://www.ugc.ac.in)  
F. No. 8-254/2010 (CPP-1/C)



ज्ञान-विज्ञान विज्ञानम्  
SPEED POST

विश्वविद्यालय अनुदान आयोग  
बाहदुरशाह जफर मार्ग  
नई दिल्ली-110 002  
UNIVERSITY GRANTS COMMISSION  
BAHADURSHAH ZAFAR MARG  
NEW DELHI-110 002

January, 2011

13 JAN 2011

The Registrar,  
Bangalore University,  
Jnana Bharathi,  
Bangalore – 560 056,  
Karnataka.

**Sub: - Recognition of College under Section 2 (f) of the UGC Act, 1956. -**

Sir,

I am directed to refer to the letter No. TOCS/20/2010-2011 dated 06.09.2010 received from the Principal, The Oxford College of Science, No. 32, 19<sup>th</sup> Main, 17<sup>th</sup> 'B' Cross, Sector – 4, HSR Layout, Bangalore – 560 102, (Karnataka) on the above subject and to say that it is noted that the following college is temporarily affiliated to Bangalore University. I am further to say that the name of the following college has been included in the list of colleges prepared under Section 2 (f) of the UGC Act, 1956 under the head 'Non Government Colleges teaching upto Master's Degree':-

Name of the College	Year of Establishment	Remarks
The Oxford College of Science, No. 32, 19 <sup>th</sup> Main, 17 <sup>th</sup> 'B' Cross, Sector – 4, HSR Layout, Bangalore – 560 102, (Karnataka).	1994	The college does not fulfil the requirement of permanent affiliation. Therefore, the college is not eligible to receive Central assistance under Section 12 (B) of the UGC Act, 1956.

The Indemnity Bond and the other supporting documents submitted in respect of the above College have been accepted by the University Grants Commission.

Yours faithfully,  
  
(Uma Bati)  
Under Secretary

Copy to:-

1. The Principal, The Oxford College of Science, No. 32, 19<sup>th</sup> Main, 17<sup>th</sup> 'B' Cross, Sector – 4, HSR Layout, Bangalore – 560 102, (Karnataka).
2. The Secretary, Government of India, Ministry of Human Resource Development, Department of Higher Education, Shastri Bhawan, New Delhi - 110 001.
3. The Principal Secretary (Higher Education), Government of Karnataka, K.G.S. 6<sup>th</sup> Floor, M.S. Building, R. No. 645, Dr. B.R. Ambedkar Road, Bangalore – 560 001, (Karnataka).
4. The Deputy Secretary, UGC, South-Western Regional Office (SWRO), Prasanna Kumar Block, Palace Road, Bangalore - 560 009, (Karnataka).
5. Publication Officer (UGC-Website), New Delhi.
6. Section Officer (FD-III Section), UGC, New Delhi.
7. All Sections, UGC, New Delhi.
8. Guard file.

S. Gulati  
(Sunita Gulati)  
Section Officer

Ph. 23236351, 23232701, 23237721  
23234116, 23235733, 23232317  
23236735, 23239437, 23239627

Extension No. 413 (CPP-I Colleges)  
UGC Website: [www.ugc.ac.in](http://www.ugc.ac.in)  
F. No. 8-254/2010 (CPP-I/C)



विश्वविद्यालय अनुदान आयोग  
बहादुरशाह जफर मार्ग  
नई दिल्ली-110 002  
UNIVERSITY GRANTS COMMISSION  
BAHADURSHAH ZAFAR MARG  
NEW DELHI-110 002

August, 20

**27 AUG 2013**

The Registrar,  
Bangalore University  
Jnana Bharathi  
Bangalore – 560 056  
Karnataka

**Sub: - Declaring a College fit to receive Central Assistance under Section 12 (B) of the UGC Act, 1956.**

Sir,

I am directed to refer to the letter no. TOCS/437/UGCRECGN/2013-14 dated 31.07.2013 received from the Principal, The Oxford College of Science, No. 32, 19<sup>th</sup> Main, 17<sup>th</sup> 'B' Cross, Sector 4, HSR Layout, Bangalore – 560 102, Karnataka on the above subject and to say that it is noted that the following college is un-aided/self financed and permanently affiliated to Bangalore University, Bangalore. The college is already included under Section 2 (f) of the UGC Act, 1956 vide this office letter of even No. dated 13.01.2011. I am further to say that the name of the following college has been included in the list of colleges prepared under Section 12 (B) of the UGC Act, 1956 under the head 'Non-Government, self financed College teaching upto Master's Degree':-

Name of the College	Year of Establishment	Remarks
The Oxford College of Science, No. 32, 19 <sup>th</sup> Main, 17 <sup>th</sup> 'B' Cross, Sector – 4, HSR Layout, Bangalore – 560 102, Karnataka.	1994	The College is now declared fit to receive Central assistance in terms of Rules framed under Section 12 (B) of the UGC Act, 1956. However, the College, being a self financing, unaided, would be eligible to receive UGC support only in respect of teachers & student related schemes as per the decision of the Commission dated 6 <sup>th</sup> July 2011.

The documents submitted in respect of the above College have been accepted by the University Grants Commission.

Yours faithful

(P.K. Sharma)  
Under Secretary

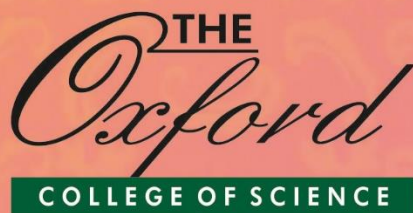
Copy to:-

1. The Principal, The Oxford College of Science, No. 32, 19<sup>th</sup> Main, 17<sup>th</sup> 'B' Cross, Sector – 4, HSR Layout, Bangalore – 560 102, Karnataka.
2. The Secretary, Government of India, Ministry of Human Resource Development, Department of Higher Education, Shastri Bhawan, New Delhi - 110 001.
3. The Principal Secretary Higher Education Govt of Karnataka K.G.S. 6<sup>th</sup> Floor, M.S. Building, No. 645 Dr. B.R. Ambedkar Road, Bangalore – 560 001.
4. Deputy Secretary, UGC, South-Western Regional Office, Prasanna Kumar Block Palace Road, Gandhi Nagar Bangalore – 560 009(Karnataka).
5. Publication Officer (UGC-Website), New Delhi.
6. Section Officer (FD-III Section), UGC, New Delhi.
7. Guard File.

(Sunita Gulati)

Accreditation Certificate of Cycle I:





#32, 17th B Main, Sector IV, HSR Layout, Bangalore- 560 102  
Ph : +91-80-3026 6335 / 316 / 301 / 391 Fax : +91-80-3026 6349