



Progressive Education Society's
Modern College of Arts, Science and Commerce,
Shivajinagar, Pune -411 005

STAR COLLEGE SCHEME

(Sanction Letter BT/HRD/06/001/2007/Vol-II)

by

Government of India

Ministry of Science and Technology

Block-2, 7th Floor C.G.O. Complex, Lodi Road

New Delhi -110003

1. **Name of the College:** Modern College of Arts, Science and Commerce,
Shivajinagar, Pune-411005, Maharashtra
2. **Name of Departments supported:** Biotechnology, Botany, Microbiology, Zoology
- Name of Coordinator:** Prof. S.R. Chaudhari
- Asst. Coordinator :** Dr. Shilpa S. Mujumdar
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3. Constitution of advisory committee

Core committee:-

[1] Members from the college

Chairman : Dr. R,S, Zunjarrao , Principal

Member Secretary : S.R. Chaudhari (Coordinator)

Members: coordinators from participating departments

Dr. S.S. Bhagat (Head, Department of Biotechnology)

Dr. S.S. Mujumdar (Asst. Coordinator star college scheme
and Head, Department of Microbiology)

Dr. N.M. Patil (Department of Botany)

Dr N. M. Naidu (Head, Department of Zoology)

Members: Faculty Members from participating departments

Dr. Rebecca Thombre (Department of Biotechnology)

Prof. Vivek N. Bobade (Department of Microbiology)

Dr. R.B. Barmukh (Department of Botany)

Prof. Kalbage (Department of Zoology)

[2] Members: External Experts: “Mentoring/Monitoring Committee”

(1) Dr. S.R. Yadav,
Professor and Head,
Department of Botany,
Shivaji University, Kolhapur, (Maharashtra), PIN 416004.

(2) Dr. A.M. Deshmukh,
Professor and Head,
Department of Microbiology,
Dr. Babasaheb Ambedkar Marathwada University,
Aurangabad,
Sub centre Osmanabad, (Maharashtra), PIN 413501

4. Amount Sanctioned : 47 Lakhs (20 Lakhs Capital , 27 Lakhs recurring for 3 years)

5. Qualitative improvements due to DBT support

Biotechnology

- Infrastructure development
- Skill development training to students
- Scientific knowledge to students

Botany

- Students were exposed to scientific concepts which otherwise students would learn at post graduate level.
- Students (Logical thinking)
- Interest was generated amongst the students for the subject.

Microbiology

- Purchase of new and essential instruments in the department improved the infrastructure of the Department.
- Students got exposure to newer techniques and hands on experience to use various instruments (other than regular curriculum) through the practical conducted under STAR college activity.
- Students performed project work on various topics which inculcated scientific temperament in the students.
- The lectures arranged under STAR college scheme such as “Ebola Virus: Awareness & precautions”& “Statistics in biology”, updated students’ and teacher’s knowledge in the field of Life sciences.
- Because of the activities conducted like “Poster competition, Quiz competition, Model competition, Micro-toons drawing competitions”, developed competence in the students.

Zoology

Practical in Cell Biology and Histology have been conducted more effectively due to-

- New sophisticated binocular microscopes and monocular compound microscopes
- More students getting an opportunity to handle microscopes separately (in contrast to observation in groups with less number of microscopes)
- Intensive Workshop with Hands-on –Training in Microscopy was successfully conducted.
- Students interested in doing project work now find it very easy as they have received financial support from the DBT Scheme.
- Teachers too are motivated and enthused to participate in Seminars/Conferences and also to take up feasible research activities.
- Co-curricular activities for students could be held on a large scale due to financial support and moreover the flexibility offered by the DBT Scheme for student-centric activities.

6. Overall improvements due to DBT support :

1. Students were exposed to new techniques and practical skills supporting to existing syllabus.
2. Students could able to handle the instruments by their own and got exposure to proper handling of instruments.
3. Students were highly benefited by supplementary knowledge and information in interdisciplinary fields.
4. Teachers were also benefited by the exposure through workshops they conducted and attended.
5. Students also exposed to manage different events through these activities.
6. Students interest in the subject increased.

7. **List of Lab manuals/SOPs generated** for all participating departments :

List of Lab manuals generated by Department of Botany:

Manual of Seed Technology,
Manual of PCR,
Manual of Dry Flower Making

List of SOPs generated for Instruments by Department of Microbiology:

SOP for Incubator, Hot Air Oven, Vertical Autoclave,
Colorimeter, pH meter, Distillation Unit, Electronic weighing balance,
Laminar air flow hood, Bench top Centrifuge

8. **Strengthening of the UG education due to Star College Scheme :**

1. Provision of Instruments to every student such as microscope, balance, pH meter, colorimeter, etc. was possible due to star college funding.
2. Additional consumables for extra practical were available which helped students of UG to develop the interdisciplinary approach of Microbiology, Botany, Zoology and Biotechnology.
3. It was possible to arrange special training programs like hands on workshop on Microscopy, Flower arrangement which were found highly beneficial for UG students to get sound in basic knowledge and entrepreneurship.
4. It make possible to plan teaching learning and evaluation process for students through interactions regarding theory and practical.
6. Students become aware about the scope in subjects due to activities which were supported by financial assistance through star college.
7. Star College Scheme were also found to be beneficial for teachers as they were able to explain more practical approach of the subject to the students and could able to successfully create the subject interesting.
8. Aims and Objectives of Star College Scheme are fulfilled with the progress of students in practical and theory knowledge.

Photographs of Activities:



Workshop in PCR techniques



Model Making Competition :Botany



Microscopy Workshop under star college scheme for Life science students



Microscopy Workshop under star college scheme for Life science students



Zoovision Exhibition



MICROSIM Exhibition

Prof. S.R.Chaudhari
Star College Coordinator

Dr. Shilpa S. Mujumdar
Asst. Coordinator of Star College

Dr.R.S.Zunjarrao
Principal