

AQAR 2023-2024

Criterion-VI
GOVERNANCE, LEADERSHIP AND MANAGEMENT
QIM – 6.5.2

The institution reviews its teaching learning process, structures & methodologies of operations and learning outcomes at periodic intervals through IQAC set up as per norms and recorded the incremental improvement in various activities

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Shri. Shivaji Education Society, Amravati's
**Mahatma Fule Arts, Commerce & Sitaramji
Chaudhari Science Mahavidyalaya, Warud.**

Dist. Amravati - 444 906 (07229) 232022

NAAC Reaccredited with "B" Grade CGPA 2.24 (IIIrd Cycle) (2021-2026)

 President Hon'ble Harshavardhan P. Deshmukh	 Principal Dr. Dilip V. Hande M.Sc.(Botany), Ph.D., FMSI	 Founder President Dr. Panjabrao alias Bhausaheb Deshmukh M.A., D.Phil., L.L.D., Bar-At-Law
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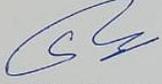
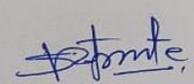
College Code : 104 | Email : mfm1_warud@rediffmail.com | Website : <http://mfulecollegewarud.ac.in>

Outer No. MFM/ Date : 09/10/2024

Declaration Letter

This is to certify, that the information, reports, true copies of the supporting documents, numerical data etc. furnished in this document are verified by the college IQAC and found correct.

Hence, this certificate.

 Criterion In-charge	 Documentation Coordinator
 IQAC IQAC Coordinator Mahatma Fule Arts, Commerce and Sitaramji Chaudhari Science Mahavidyalaya, Warud, Dist. Amravati	  Principal Principal Mahatma Fule A.C. & Sitaramji Choudhari Science College, Warud

Academic Administrative Audit :

Department of Zoology-

महात्मा फुले कला, वाणिज्य व सीतारामजी चौधरी विज्ञान महाविद्यालय वरुड

Notice

Academic Audit (2023-24)

महाविद्यालयातील सर्व वरिष्ठ महाविद्यालयीन शिक्षक यांना सूचित करण्यात येते की सत्र २०२३-२४ चे शैक्षणिक लेखापरीक्षण (Academic audit) करावयाचे आहे. करीता खालील दिलेल्या format प्रमाणे माहिती तयार ठेवावी. विभागवार भेटीचे वेळापत्रक लवकरच जाहीर करण्यात येईल.

दि. 15/04/2024

Dr. G.N. Chaudhari
Principal
Mahatma Fule Arts, Com & Sitaramji Chaudhari Sci. Mahavidyalaya, Warud

MAHATMA FULE ARTS, COMMERCE AND SITARAMJI CHAUDHARI SCIENCE MAHAVIDYALAYA, WARUD, DIST- AMRAVATI (MH)

Format for Self Performance Appraisal
[for a faculty]
2023-2024

SECTION - I : GENERAL INFORMATION

Name of the Teacher	Dr. Sunil Ramkrushna Kondulkar
Designation	Professor
Name of the Department	ZOOLOGY
Qualification	M.Sc. Ph.D
Total years of service	18 year

SECTION - II : ACADEMIC AND ADMINISTRATIVE WORK ALLOTTED

A. Teaching (Per Week)

	B.Sc. I	B.Sc. II	B.Sc. III	Total(Hrs)
Theory Lectures	1	2		2 Hr 30 min
Practical's	6	6	3	12 Hr
Tutorials				
Total	7	8	3	14 Hr 30 min

B. Involvement in Teaching of other Courses (put Y/N)

B.C.A.	M.Sc.	COC	Remedial	Bridge	Other (specify)
Y					

C. Internal Assessment (put Y/N)

Work Assigned	B.Sc. I	B.Sc. II	B.Sc. III	M.Sc. I	M.Sc. II	BCA I	BCA II	BCA III
Assignments	Y	N	N	N	N	N	N	N
Seminars	N	N	N	Y	Y	N	N	N
Projects	N	N	N	Y	Y	N	N	N
Unit Tests	Y	Y	Y	N	N	N	N	N

D. Departmental Work (e.g. stock checking, IQAC compliance, co-curricular activities, even organization etc)

1	University Exa Work
2	Organization of guest lecture
3	Criteria-I Co-ordinator
4	

E. College Administrative Work (e.g. Committee name, convener/member)

1	Hod Council
2	Science Faculty Head

Dr. Panjabrao Deshmukh Jayanti Utsav - Member

SECTION - III : TEACHING, LEARNING AND EVALUATION RELATED ACTIVITIES (Max Score=

A. Result Analysis of last semesters(max. score 20/semester)
(A- above 75 %, B- 60%-74%, C- 50% -59 and D- 35-49% for 1st year and D- 40-49% for 2nd /3rd year
Actual score = $[\text{pass \%} + A(\text{in \%}) + B(\text{in \%})] / 10$
(Winter -2023)

Class	Pass %	A (in %)	B (in %)	C (in %)	D (in %)	SCORE
B.Sc. I	30.00	03	11	26	11	4.4
B.Sc. II	47.27	00	18	22	16	6.52
B.Sc-III	66.17	03	28	31	05	9.71
Total						20.63

AVE. SCORE

(Summer-2024)

Class	Pass %	A (in %)	B (in %)	C (in %)	D (in %)	SCORE
B.Sc. I	21	4	5	23	17	3
B.Sc. II	78.85	12	26	10	4	11.68
B.Sc-III	80.60	5	40	11	11	12.5
Total						27.18

AVE. SCORE

B. Course Covered (max. score 30/semester) Actual score = Actual contact teaching hours/10

UG	B.Sc.-I	B.Sc.-II	B.Sc.-III	BCA-I	BCA-II	BCA-III	Total
No. of Units allotted	0	2	1				3
No. of Units completed	0	2	1				3
No. of Units remained	0	0	0				0
No. of lectures (L) due	0	18	15				33
No. of lectures (L) engaged	0	18	15				30
No. of extra lectures	00	00	00				0
No. of Pract. (P) due	00	60	30				90
No. of Pract. (P) engaged	0	54	27				81
Total Hrs(L+P) due	0	79.20	49.20				207.6
Total Hrs (L+P) engaged	0	73.20	43.20				192.6

SCORE 192.6

(max. score 10/semester) Actual score = Actual contact teaching hours/10

PG	M.Sc.-I	M.Sc.-II	Total
No. of Units allotted	0	0	0
No. of Units completed	0	0	0
No. of Units remained	0	0	0
No. of lectures (L) due	0	0	0
No. of lectures (L) engaged	0	0	0
No. of extra lectures	0	0	0
No. of Pract. (P) due	0	0	0
No. of Pract. (P) engaged	0	0	0
Total Hrs (L+P) due			

Total Hrs (L+P) engaged | SCORE

B. Involvement in Teaching other Courses/subjects (total hours of teaching)
Actual score = Actual contact teaching hours/10

COC	Remedial	Bridge	Other (specify)	Total (Hrs) spent

SCORE

C. Curriculum enrichment (keep record)
(copy & paste table if required for other classes) Actual score = Actual contact teaching hours/10

Class	Supplementary Curriculum prepared and taught additionally	Total hours spent on delivering it

SCORE

D. Percentage attendance of students (max. score 10/semester)

I. 10 for 75 % and above
II. 8 for 60-74 %
III. 6 for 50-59 %
IV. 4 for 40-49 %

Class	% attendance	SCORE
B.Sc-I	79	10
B.Sc-II	76	10
B.Sc-III	75	10

E. Attempts made to increase attendance (keep record) (max. Score 5)

Regular record checking: YES
Reason for absentee
Submission of medical certificate
Inform to parents and interaction

SCORE 5

F. Internal Assessment (total hours of work in semester) (max. Score 10) Actual score = Total hours/10

Work Assigned	B.Sc. I	B.Sc. II	B.Sc. III	M.Sc. I	M.Sc. II	BCA I	BCA II	BCA III	Total Hrs
Assignments	00	04	00	00	00	00	00	00	04
Projects	00	04	00	00	18	00	00	00	22
Seminar	00	00	00	00	00	00	00	00	00
Unit Tests	02	02	004	00	00	00	00	00	08
									SCORE 3.4

GOVERNANCE, LEADERSHIP AND MANAGEMENT

G. Use of ICT in teaching-(online lectures,e- ppt, use of multimedia)Actual score = Total hours/10

Class	Ways in which ICT used	Total Hrs in semester
B.Sc-I	PPT	2
B.Sc-II	PPT	6
B.Sc-III	PPT	6
SCORE		1.4

H. Teaching methods adopted other than conventional chalk& board method (field visits, group discussion, seminars)
Actual score = Total hours/10

Class	Teaching method	Total Hrs in semester
B.Sc-I	Group discussion	8
B.Sc-II	Seminars	10
B.Sc-III	Seminars	10
SCORE		2.8

I. Development of e-content (max score 20)(2 per module &max score 15 - record)
Per class per module/unit - 2

Class	No. of modules/units	E-content
SCORE		

J. Efforts made towards fulfillment of special needs of advanced learners(special coaching/guidance for competitions, entrance examinations ,projects etc). If any, (keep record)(max. score 20)
Actual score = (Total hours/10) +5 for outcome

Class	Work done	Total Hrs spent	Outcome
M.Sc-II	Project work	30	Students Participated national Conference
SCORE			B

K. Efforts made to uplift academic performance level of slowlearners (extra practice/ providing study materials, counseling). If any, (keep record)(max. score 20)
Actual score = (Total hours/10)+5 for outcome

Class	Work done	Total Hrs spent	Outcome
B.Sc-I	Counseling	12	Students attend regular Practicals and Theory classes
SCORE			6.2

SECTION - IV : PROFESSIONAL DEVELOPMENT AND PARTICIPATION IN EXTENSION ACTIVITIES

A. Students related co-curricular and field-based activities (e.g. field work, study tour, industrial visit, career counseling, etc (keep record)(max. score 20)

Actual score = Total hours/10

Sr. No.	Activity	Hrs Spent
1	M.Sc. & B.sc study tour	06
2	Organized Guest lectures for M.Sc & B.sc students	03
SCORE		0.9

B. Other co-curricular activities (e.g. cultural, sports, N.S.S, N.C.C etc) (max. score 20)
Actual score = Total hours/10

Sr. No.	Activity	Hrs Spent
1	Cultural Activity	30
SCORE		0.3

C. Extension /outreach activities(e.g. public/popular talks, working with GOs & NGOs etc) (keep record)(max. score 20)
Actual score = Total hours/10

Sr. No.	Activity	Hrs Spent
1		
SCORE		

D. Contribution to management of department and college(max. score 20)
Actual score = Total hours/10

Sr. No.	Activity/committee work	Hrs Spent
1		
SCORE		

E. Contribution to university work (keep record)(max. score 15)
Actual score = Total hours/10

Sr. No.	Administrative/academic responsibility (e.g., Dean, BOS, Paper setting/moderation/valuation / curriculum restructuring etc	Hrs Spent
1	Valuation	15
2		
SCORE		1.5

F. Membership of academic associations(max. score 10)
3 each for international /national level and 2 each for other levels membership

Sr. No.	Name of Association
1	
SCORE	

G. Professional Development(max. score 10/semester)
Actual score = Total hours/10

Sr. No.	Name of course (e.g. refresher, orientation, short term courses etc)	Hrs Spent
SCORE		

SECTION - V: RESEARCH ACTIVITIES (keep records)(score will be as per API guidelines).

	SCORE
A. No. of students submitted/awarded Ph.D. degree	
B. No. of registered students for Ph.D. degree	
C. No. of fellow students	3

D. Research Projects

Project	Title	Funding Agency	Status (ongoing/completed)	Outlay (Lack)	SCORE
TOTAL SCORE					

E. Research Publications in Journals

Title, authors, journal, volume, page no.	Citations	Impact Factor	Internation al Database	h- index	SNIP	SJR	SC OR E
Study of Diversity of Scolopendra centipedes(Chilopoda Scolopendromorpha) in Achalpur Region ,District Amravati MS	-	2.0	google				
International Journal of Scientific Research in Biological Science, Vol 10 Issue 3 pp.70-74							
TOTAL SCORE							

F. Research Publications in Proceedings (2 per abstract and 5 per full text paper)

Title, authors	Name of conf/workshop etc with date/s	No. of Papers	Oral/Poster	SCORE
Nabira Mahavidyalaya ,Katol & Association of Chemistry (ACT),Mumbai, March 15-16,2024	International Conference on- FUNCTIONAL MATERIALS ICFM-2024 (Innoations in chemical,physical and Biological Sciences) March 15-16,2024	01	poster	02
TOTAL SCORE				04

of/workshop etc attended(max score 10) -2 per attendance certificate
ame of conf/workshop etc with date/s
international conference on Functional Materials at Nabira Mahavidyalaya, Katol
SCORE 02

H. Books written/edited(max score 20) 5 per book

Title of Book	Publication	Author/editor	SCORE
SCORE			

I. Awards/recognitions/chaired session by faculty/faculty as a resource person (give details)(max score 10)
10 for national level award, 5 for state level, 2 for other awards and 2 per other categories like recognitions/resource person

Name of Conference	Organizer details	Session

J. Consultancy Services 10 per consultancy

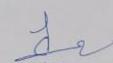
Area of consultancy	Revenue Generated
SCORE	

K. Collaboration MoU(max score 10)5 per collaboration

Organization/institute/industry etc	Details
SCORE	

L. Patents, if any (5 for per submission and 15 for per approved patent)

Patents details	Filed/ sanctioned	Patent Number	API Score


 Head
 Deptt. of Zoology
 Mahatma Fule Arts & Comm. &
 Jyotshi Chaudhari Science Mahavidyalaya
 Warud, Dist. Amravati

Department of Chemistry

**MAHATMA FULE ARTS, COMMERCE & SITARAMJI CHAUDHARI
SCIENCE MAHAVIDYALAYA, WARUD. DIST. AMRAVATI**

**Format for Self-Performance Appraisal
[for a faculty]
2023-2024**

SECTION - I : GENERAL INFORMATION

Name of the Teacher	DR. RAJESH PUNDLIKRAO GANORKAR
Designation	Professor
Name of the Department	CHEMISTRY
Qualification	M.Sc., Ph.D.
Total years of service	18 years

SECTION - II : ACADEMIC AND ADMINISTRATIVE WORK ALLOTTED

A. Teaching (Per Week)

	B.Sc. I	B.Sc. II	B.Sc. III	Total (Hrs)
Theory Lectures	02	01	02	5
Practical's	09	00	06	15
Tutorials	00	00	00	00
Total	11	01	08	20

B. Involvement in Teaching of other Courses (put Y/N)

B.C.A.	M.Sc.	COC	Remedial	Bridge	Other (specify)
N	Y	N	N	Y	

C. Internal Assessment (put Y/N)

Work Assigned	B.Sc. I	B.Sc. II	B.Sc. III	M.Sc. I	M.Sc. II	BCA I	BCA II	BCA III
Assignments	N	N	Y	N	N	NA	NA	NA
Seminars	N	N	Y	N	N	NA	NA	NA
Projects	N	N	Y	N	Y	NA	NA	NA
Unit Tests	Y	Y	Y	N	N	NA	NA	NA

D. Departmental Work (e.g. stock checking, IQAC compliance, co-curricular activities, event organization etc)

1	Coordinator Essay Competition-NEP Week
2	Induction Programme-Alumni Association and Scholarships
3	Convener of Powerpoint Presentation on Ozone
4	Convener of University Level Seminar Competition
5	Convener of Organisation of Guest Lecture
6	Member of Study Tour
7	Convener Science Awareness Programme

1 |

E. College Administrative Work (e.g. Committee name, convener/member)

1	CDC-Member
2	Convener-Admission Committee PG Chemistry
3	Member of Time Table Committee
4	Member-Admission Committee UG
5	Member of College Campus Monitoring Committee
6	Member of PPT Committee for Degree Distribution Ceremony

SECTION - III : TEACHING, LEARNING AND EVALUATION RELATED ACTIVITIES (Max Score=

A. Result Analysis of last semesters (max. score 20/semester)
(A. above 75 %, B- 60%-74%, C- 50% - 59 and D- 35-49% for 1st year and D- 40-49% for 2nd /3rd year
Actual score = [pass % + A (in %) + B (in %)]/10

Sem-IV (Winter-2023)

Class	Pass %	A (in %)	B (in %)	C (in %)	D (in %)	SCORE
B.Sc. I	30.65	15	14			
B.Sc. II	49.53	35	18			
B.Sc. III	59.98	67	09			
Total						

AVE. SCORE 20

Sem-III (Summer-2024)

Class	Pass %	A (in %)	B (in %)	C (in %)	D (in %)	SCORE
B.Sc. I	39.56	24	10	02		
B.Sc. II	48.48	24	08			
B.Sc. III	52.27	29	27			
Total						

AVE. SCORE 20

B. Course Covered (max. score 30/semester) Actual score = Actual contact teaching hours/10

UG	B.Sc.-I	B.Sc.-II	B.Sc.-III	BCA-I	BCA-II	BCA-III	Total
No. of Units allotted	02	01	02	--	--	--	05
No. of Units completed	02	01	02	--	--	--	05
No. of Units remained	00	00	00	--	--	--	00
No. of lectures (L) due	28	14	28	--	--	--	70
No. of lectures (L) engaged	28	14	28	--	--	--	70
No. of extra lectures	06	03	09	--	--	--	18
No. of Pract. (P) due	135	00	90	--	--	--	225
No. of Pract. (P) engaged	126	00	84	--	--	--	210
Total Hrs (L+P) due	154	14	112	--	--	--	280
Total Hrs (L+P) engaged	160	17	121	--	--	--	298

SCORE 30

(max. score 10/semester) Actual score = Actual contact teaching hours/10

PG	M.Sc.-I	M.Sc.-II	Total
No. of Units allotted			
No. of Units completed			
No. of Units remained			

2 |

No. of lectures (L) due

No. of lectures (L) engaged

No. of extra lectures

No. of Pract. (P) due

No. of Pract. (P) engaged

Total Hrs (L+P) due

Total Hrs (L+P) engaged

SCORE 04

B. Involvement in Teaching other Courses/subjects (total hours of teaching)
Actual score = Actual contact teaching hours/10

COC	Remedial	Bridge	Other (specify)	Total (Hrs) spent
00	00	10 Hrs	00	10 Hrs

SCORE 01

C. Curriculum enrichment (keep record)
(copy & paste table if required for other classes) Actual score = Actual contact teaching hours/10

Class	Total hours spent on delivering it

SCORE 00

D. Percentage attendance of students (max. score 10/semester)

I. 10 for 75 % and above
II. 8 for 60-74 %
III. 6 for 50-59 %
IV. 4 for 40-49 %

Class	% attendance	SCORE
B.Sc. I	80%	10
B.Sc. II	90%	10
B.Sc. III	90%	10

E. Attempts made to increase attendance (keep record) (max. Score 5)

Regular record checking.
Reason for absentee
Submission of medical certificate
Inform to parents and interaction

SCORE 05

F. Internal Assessment (total hours of work in semester) (max. Score 10)
Actual score = Total hours/10

Work Assigned	B.Sc. I	B.Sc. II	B.Sc. III	M.Sc. I	M.Sc. II	BCA I	BCA II	BCA III	Total Hrs
Assignments	00	00	10			NA	NA	NA	10
Projects	--	--	10	10		NA	NA	NA	50
Seminar	00	00	10			NA	NA	NA	10
Unit Tests	10	10	10			NA	NA	NA	30

SCORE 10

3 |

G. Use of ICT in teaching - (online lectures, e- ppt, use of multimedia) Actual score = Total hours/10

Class	Ways in which ICT used	Total Hrs in semester

SCORE 00

H. Teaching methods adopted other than conventional chalk & board method (field visits, group discussion, seminars)
Actual score = Total hours/10

Class	Teaching method	Total Hrs in semester
B.Sc.III	Powerpoint Presentation	10

SCORE 01

I. Development of e-content (max score 20) (2 per module & max score 15 - record)
Per class per module/unit - 2

Class	No. of modules/units	E-content

SCORE 00

J. Efforts made towards fulfilment of special needs of advanced learners (special coaching/guidance for competitions, entrance examinations ,projects etc). If any, (keep record) (max. score 20)
Actual score = (Total hours/10) +5 for outcome

Class	Work done	Total Hrs spent	Outcome

SCORE 00

K. Efforts made to uplift academic performance level of slow learners (extra practice/ providing study materials, counseling). If any, (keep record) (max. score 20)
Actual score = (Total hours/10) +5 for outcome

Class	Work done	Total Hrs spent	Outcome

SCORE 00

SECTION - IV : PROFESSIONAL DEVELOPMENT AND PARTICIPATION IN EXTENSION ACTIVITIES

A. Students related co-curricular and field-based activities (e.g. field work, study tour, industrial visit, career counseling, etc (keep record) (max. score 20)
Actual score = Total hours/10

Sr. No.	Activity	Hrs Spent

4 |

GOVERNANCE, LEADERSHIP AND MANAGEMENT

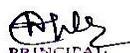
SCORE 00	
B. Other co-curricular activities (e.g. cultural, sports, N.S.S., N.C.C. etc) (max. score 20) Actual score = Total hours/10	
Sr. No.	Activity
	Hrs Spent
SCORE 00	
C. Extension /outreach activities (e.g. public/popular talks, working with GOs & NGOs etc) (keep record) (max. score 20) Actual score = Total hours/10	
Sr. No.	Activity
	Hrs Spent
1	NGO-Organization of Guest Lecture at Janata High School She,Ghat
2	School Management Committee-SOS, Warud
SCORE 02	
D. Contribution to management of department and college (max. score 20) Actual score = Total hours/10	
Sr. No.	Activity/committee work
	Hrs Spent
1	College Campus Monitoring Committee
2	Time table committee UG and PG.
3	PowerPoint presentation on Ozone
4	Science Awareness Programme
5	University Level Seminar Competition
6	Organisation of Guest Lecture
SCORE 20	
E. Contribution to university work (keep record) (max. score 15) Actual score = Total hours/10	
Sr. No.	Administrative/academic responsibility (e.g., Dean, BOS, Paper setting/moderation/valuation / curriculum restructuring etc)
	Hrs Spent
1	Moderation, Invigilator and Valuer
2	University Practical examinations Internal/External
3	Subject Expert/VC Nominee Screening Cum Evaluation Committee
SCORE 09	
F. Membership of academic associations (max. score 10) 3 each for international /national level and 2 each for other levels membership	
Sr. No.	Name of Association
	SCORE
1	Indian Science Congress Association
2	Amravati University Chemistry Teachers Association
SCORE 05	
G. Professional Development (max. score 10/semester) Actual score = Total hours/10	
Sr. No.	Name of course (e.g.- refresher, orientation, short term courses etc)
	Hrs Spent
SCORE 00	

1	UGC National Education Policy - Orientation and Sensitization Program held during 14-29 March 2024 organized by UGC-Malaviya Mission Teacher Training Centre, Inter University Centre for Astronomy and Astrophysics, Pune.	90
SCORE		09
SECTION - V: RESEARCH ACTIVITIES (keep records) (score will be as per API guidelines).		
		SCORE
A. No. of students submitted/awarded Ph.D. degree	00	00
B. No. of registered students for Ph.D. degree	00	00
C. No. of fellow students	00	00
D. Research Projects		
Project	Title	Funding Agency
	Status (ongoing/completed)	Outlay (Lack)
		SCORE
		TOTAL SCORE 00
E. Research Publications in Journals		
Title, authors, journal, volume, page no.	Citations	Impact Factor
	International Database	h-index
	SNIP	SJR
	SCORE	
Optical properties of polymethyl methacrylate/polyvinyl chloride blends. 2(4) 2023) pp. 84-89 .RP Current Trends In Applied Sciences.	Nil	Nil
	Nil	Nil
	TOTAL SCORE 3.9	
F. Research Publications in Proceedings (2 per abstract and 5 per full text paper)		
Title, authors	Name of conf./workshop etc with date/s	No. of Papers
	Oral/Poster	SCORE
Study of Phytochemical Constituents Of Chloroform and Ethyl acetate extracts of Andrographis Paniculata Plant.I Precipitation Method pp. 68-71	Oral	02
		TOTAL SCORE 02
G. Conf./workshop etc attended (max score 10) -2 per attendance certificate Name of conf./workshop etc with date/s UGC Sponsored National Conference on Recent Advancement in Science and Technology. 10/02/2024		
		SCORE 02
H. Books written/edited (max score 20) 5 per book		
		SCORE 00

Title of Book	Publication	Author/editor	SCORE
			SCORE 00
I. Awards/recognition/chaired session by faculty/faculty as a resource person (give details) (max score 10) 10 for national level award, 5 for state level, 2 for other awards and 2 per other categories like recognitions/resource person			
Name of Conference	Organizer details	Session	
Jury-UGC Sponsored National Conference on Recent Advancement in Science and Technology.	Department of Chemistry, Vidyabhari Mahavidyalaya, Amravati.	2023-24	
			SCORE 02
J. Consultancy Services: 10 per consultancy			
Area of consultancy	Revenue Generated		
	SCORE 00		
K. Collaboration MoU (max score 10) 5 per collaboration Organization/institute/industry etc			
			SCORE 00
L. Patents, if any (5 for per submission and 15 for per approved patent)			
Patents details	Filed/ sanctioned		
			SCORE 00


BRAD
 Dept. of Chemistry
 M. P. Arts, Com. & Sitaramji
 Chaudhari Science M. Warud




PRINCIPAL
Mahatma Jyotiba Phule Arts, Com. & Sitaramji
Chaudhari Sci. Mahavidyalaya, Warud

**Mahatma Fule Arts Commerce and Sitaramji Chaudhari Science
Mahavidyalaya Warud**

Academic audit Report 2023-24

College has established a committee for academic audit for smoothly functioning of academic activity. Committee has visited to each department in the college. Committee has checked all attendance and daily diary of all teaching staff members of college. Committee also verified the information written in daily diary by checking the evidences of concern information.

Committee members

- 1) Dr G.K.Reddy
- 2) Mr S.T.Ghorpade
- 3) Ms. A.B.Patil

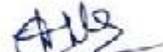


Dr G.K.Reddy
Coordinator



Dr S.V.Satpute

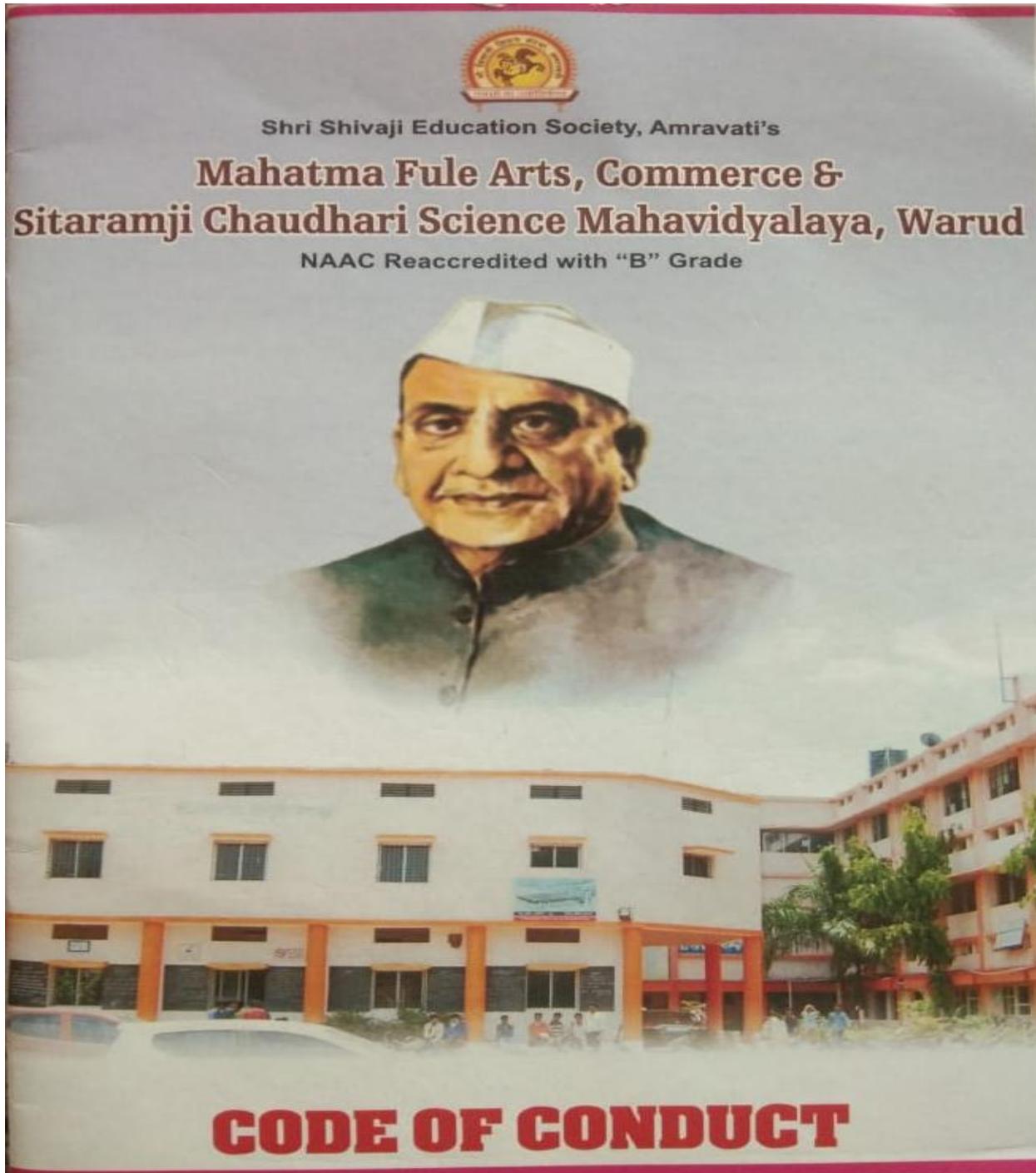
ICAC Coordinator
Mahatma Fule Arts, Commerce and
Sitaramji Chaudhari Science
Mahavidyalaya, Warud, Dist. Amravati



Dr.G.N.Chandhari

Principal
Mahatma Fule Arts, Com. & Sitaramji
Chaudhari Sci. Mahavidyalaya, Warud

CODE OF CONDUCT



CODE OF CONDUCT

Edition : First, July 2019

:: Published by ::

Principal

Mahatma Fule Arts, Commerce and
Sitaramji Choudhari Science Mahavidhyalaya, Warud
Dist. Amravati 444 906 (MS)

Visit us : www.mfulecollegewarud.org

Email : mfm1_warud@rediffmail.com

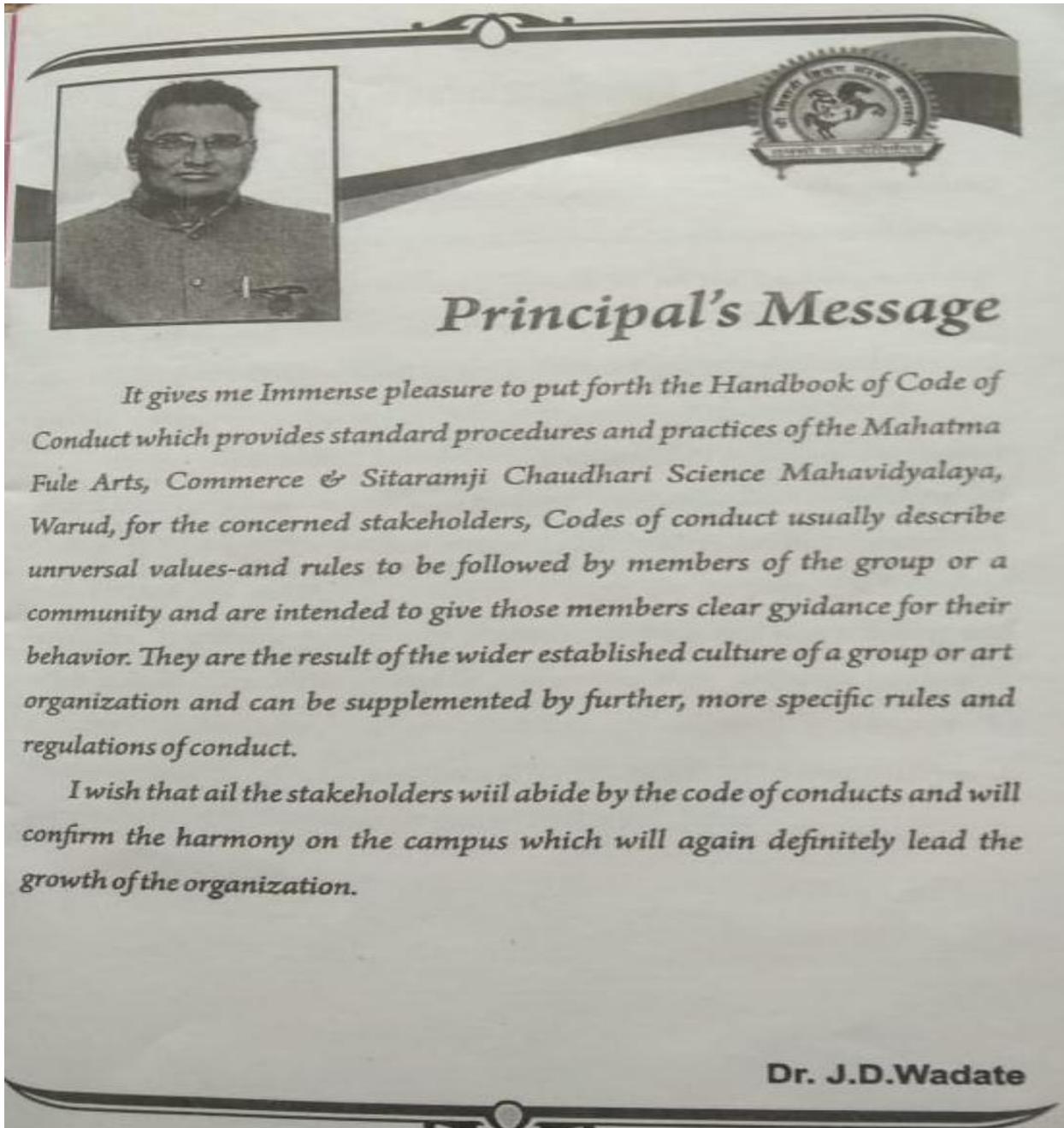
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Choudhari Science Mahavidhyalaya, Warud Dist. Amravati.

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Approch Road, Warud Dist. Amravati



The page features a decorative header with a banner. On the left is a portrait of a man with glasses, wearing a dark jacket. On the right is a circular logo with a horse and text in Marathi. Below the banner is the title "Principal's Message" in a large, bold, serif font. The main text is in italics, consisting of two paragraphs. The first paragraph discusses the purpose of a code of conduct. The second paragraph expresses a wish for stakeholders to follow the code. The name "Dr. J.D.Wadate" is printed in a bold, sans-serif font at the bottom right of the page.

Principal's Message

It gives me Immense pleasure to put forth the Handbook of Code of Conduct which provides standard procedures and practices of the Mahatma Fule Arts, Commerce & Sitaramji Chaudhari Science Mahavidyalaya, Warud, for the concerned stakeholders, Codes of conduct usually describe universal values-and rules to be followed by members of the group or a community and are intended to give those members clear guidance for their behavior. They are the result of the wider established culture of a group or art organization and can be supplemented by further, more specific rules and regulations of conduct.

I wish that ail the stakeholders wiil abide by the code of conducts and will confirm the harmony on the campus which will again definitely lead the growth of the organization.

Dr. J.D.Wadate

Introduction

This Handbook of Code of Conduct Indicates the standard procedures and practices of the Mahatma Fule Arts, Commerce & Sitaramji Chaudhari Science Mahavidyalaya, Warud, for all the students, teaching-non teaching faculty and the stakeholders. All the stakeholders must know that it is incumbent upon them to abide by this Code of Ethics and Conduct and the rights, responsibilities including the restrictions flowing from it.

All the concerned stakeholders are expected to maintain the highest ethical standards in all associations and activities with others on behalf of the College, It is essential that ! the concerned stakeholders conduct themselves a manner that will withstand the closest scrutiny. The purpose of this Code of conduct is to provide guidance to students, teaching and non teaching and other stakeholders of the college In performing their duties as responsible citizens. All the concerned stakeholders are required to observe the fundamentals! principles whether set out for the stakeholders specifically or as expectations set by the college for the conduct of its affairs.



CONTAINS

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Code of conduct for Governing body	9 - 10

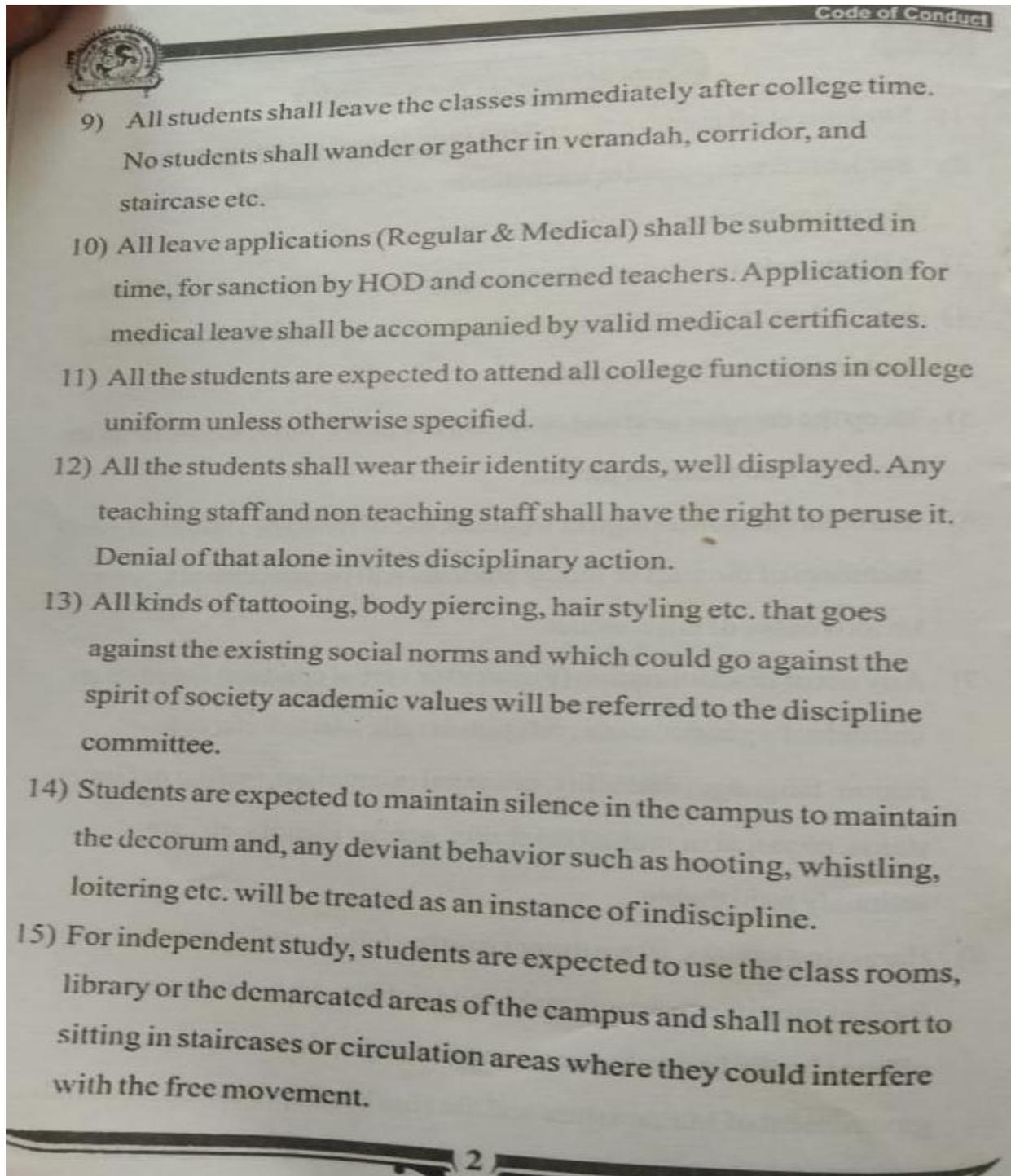
Code of Conduct



Code of conduct for Students

- 1) Students shall come to the college in approved uniforms only.
- 2) Students are expected to maintain the highest standards of discipline inside the College campus.
- 3) All the students are expected to be present in the classes well in time.
- 4) No student shall enter or leave the class room when the session is on without teacher's permission.
- 5) Keep the campus neat and clean. Do not throw waste anywhere in the campus. Use dustbins for this.
- 6) Misbehavior towards girl's students, use of threat or violence against members of the staff or fellow students will be considered as very serious cases of misconduct.
- 7) Any act of discrimination (Physical or verbal conduct) based on an individual's gender, caste, religion or religious beliefs, colour, region, language, disability, or sexual orientation, marital or family status, physical or mental disability, gender identity, etc. are seriously punishable.
- 8) Harassing juniors, ill treatment to other fellow students or any such form of ragging is objectionable and liable to be treated as criminal offence by the law enforcing agencies as per the directives of the government of Maharashtra and the Hon'ble Supreme Court of India.

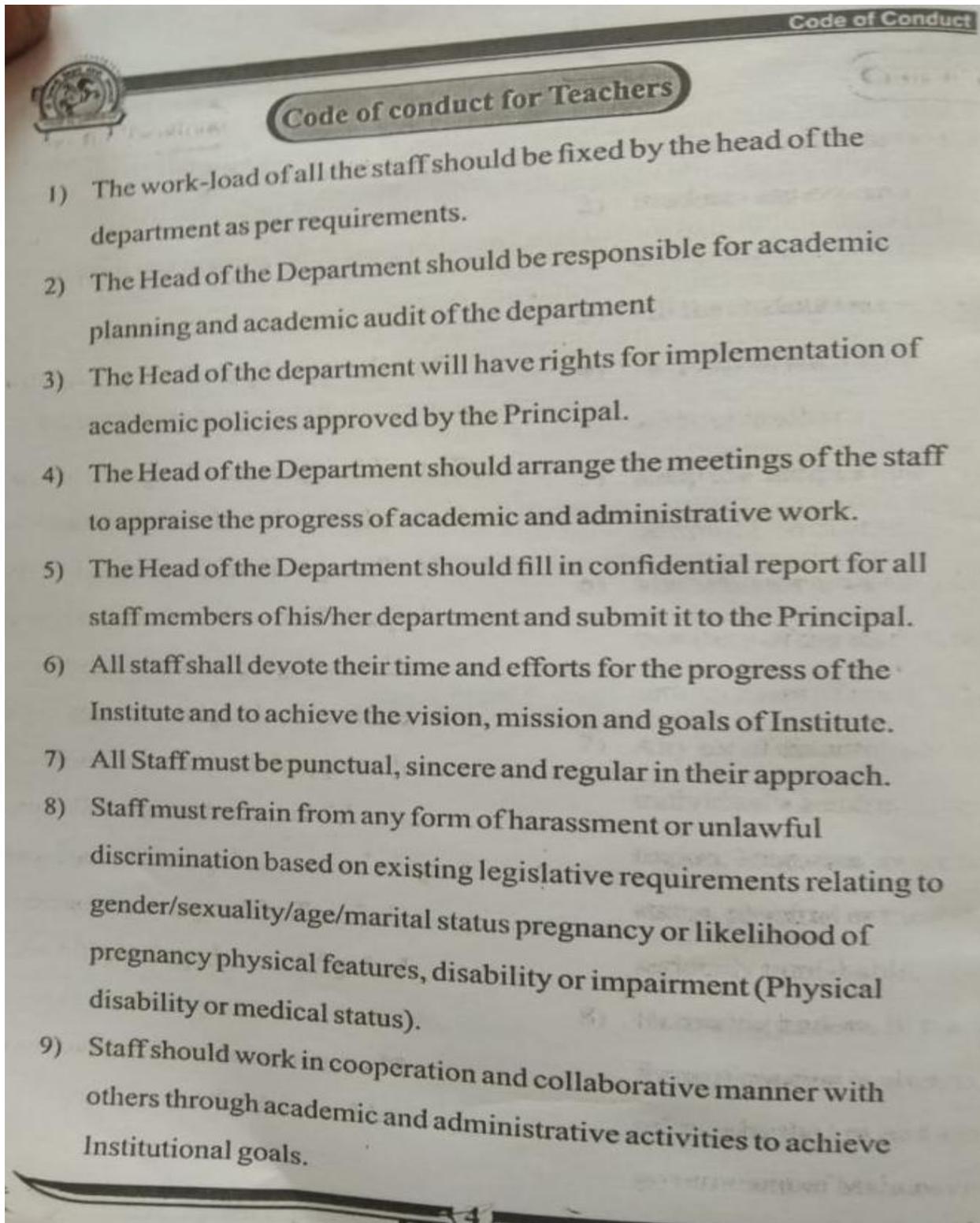
1





- 16) All the students are advised to follow the institute's Mobile phone policy and bring to the notice of the authorities violations if any.
- 17) Consumption of intoxicants / psychotropic substances in any form or smoking or using chewinggum, panmasala etc. are strictly prohibited and will be duly punishable.
- 18) Carefully handle the furniture, equipments, fixtures and appliances of the college and lab.
- 19) Careless handling/misuse of the above could result personal injuries or damage to property will have to bear the cost of replacement/ repair with fine.

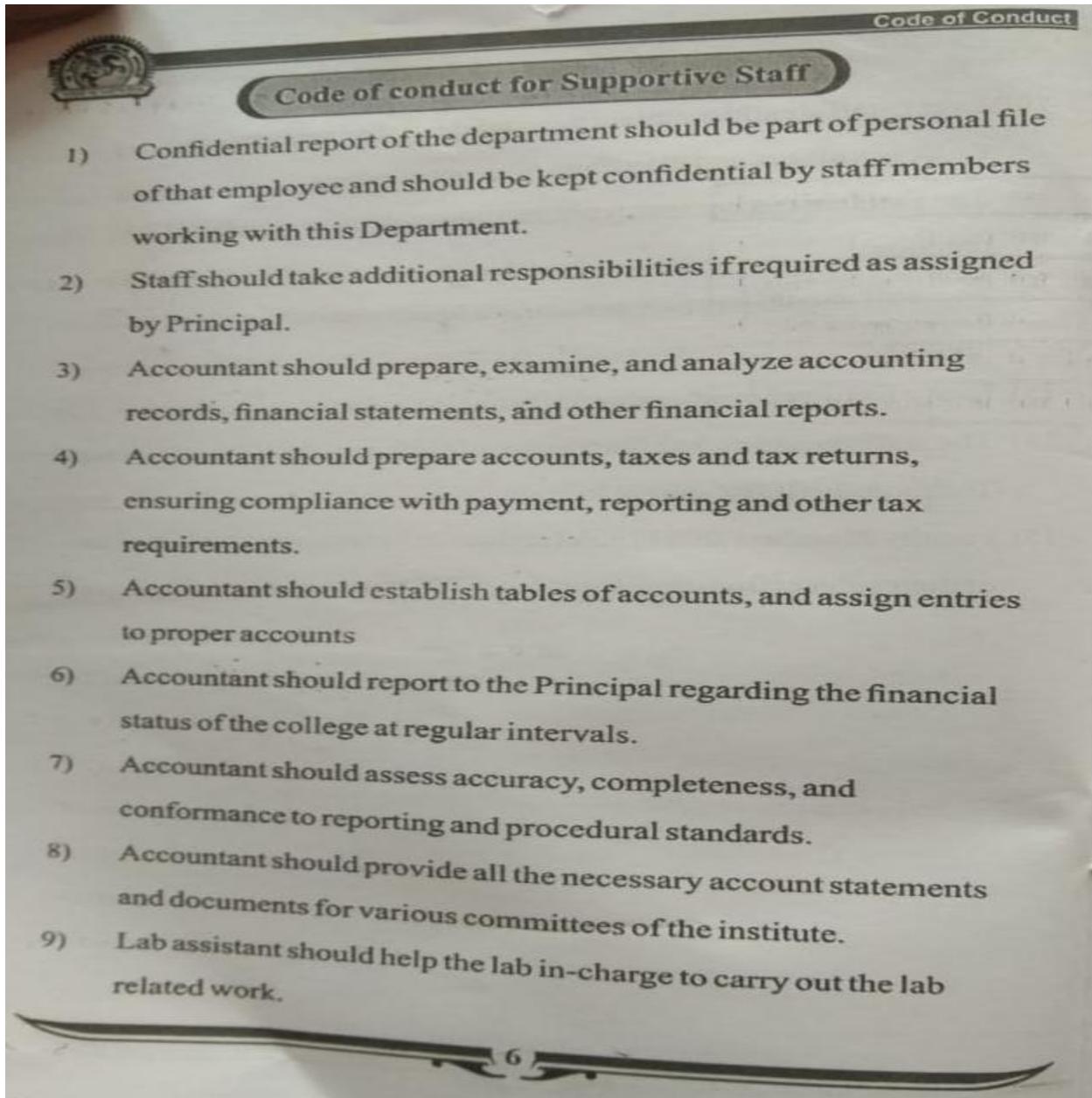


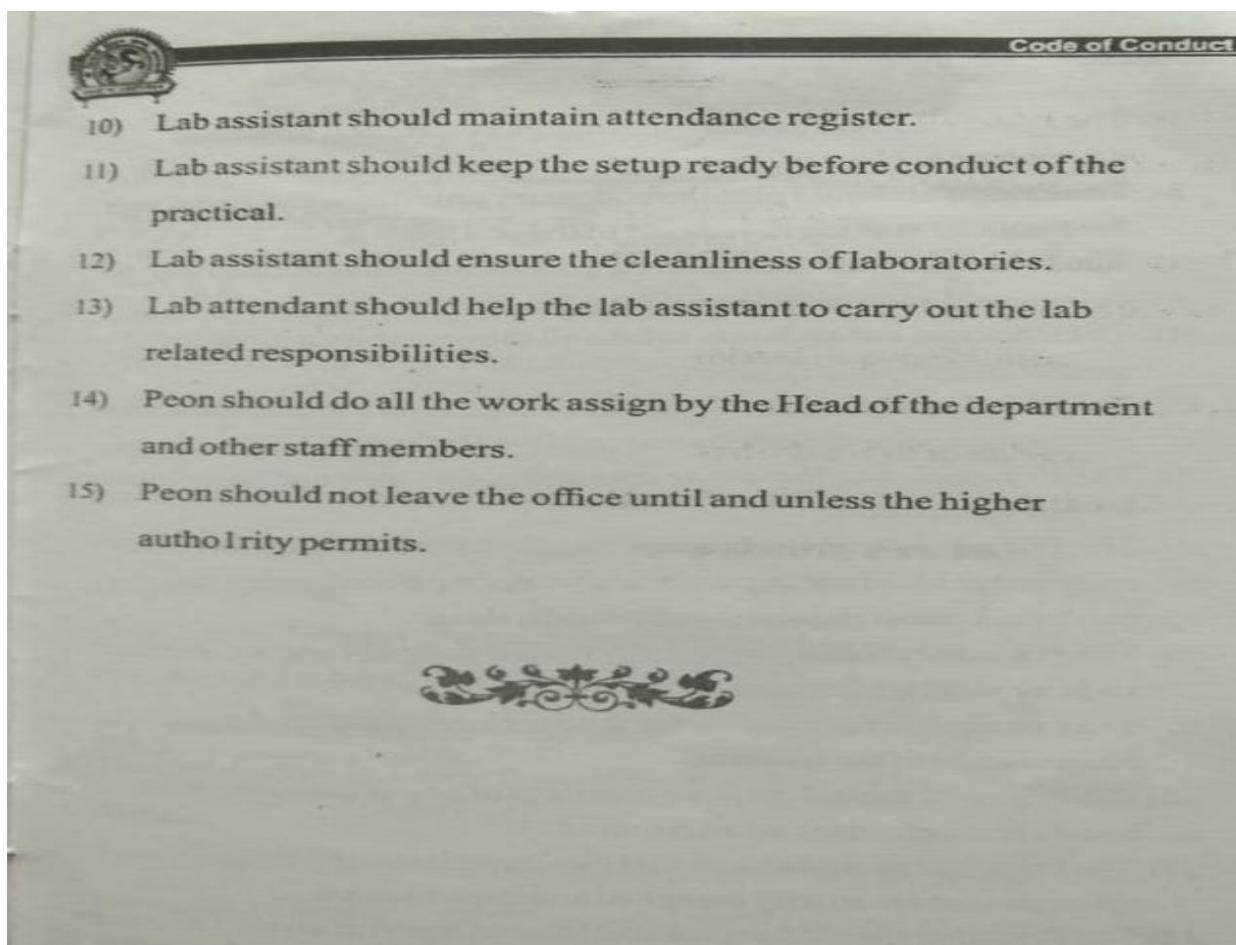


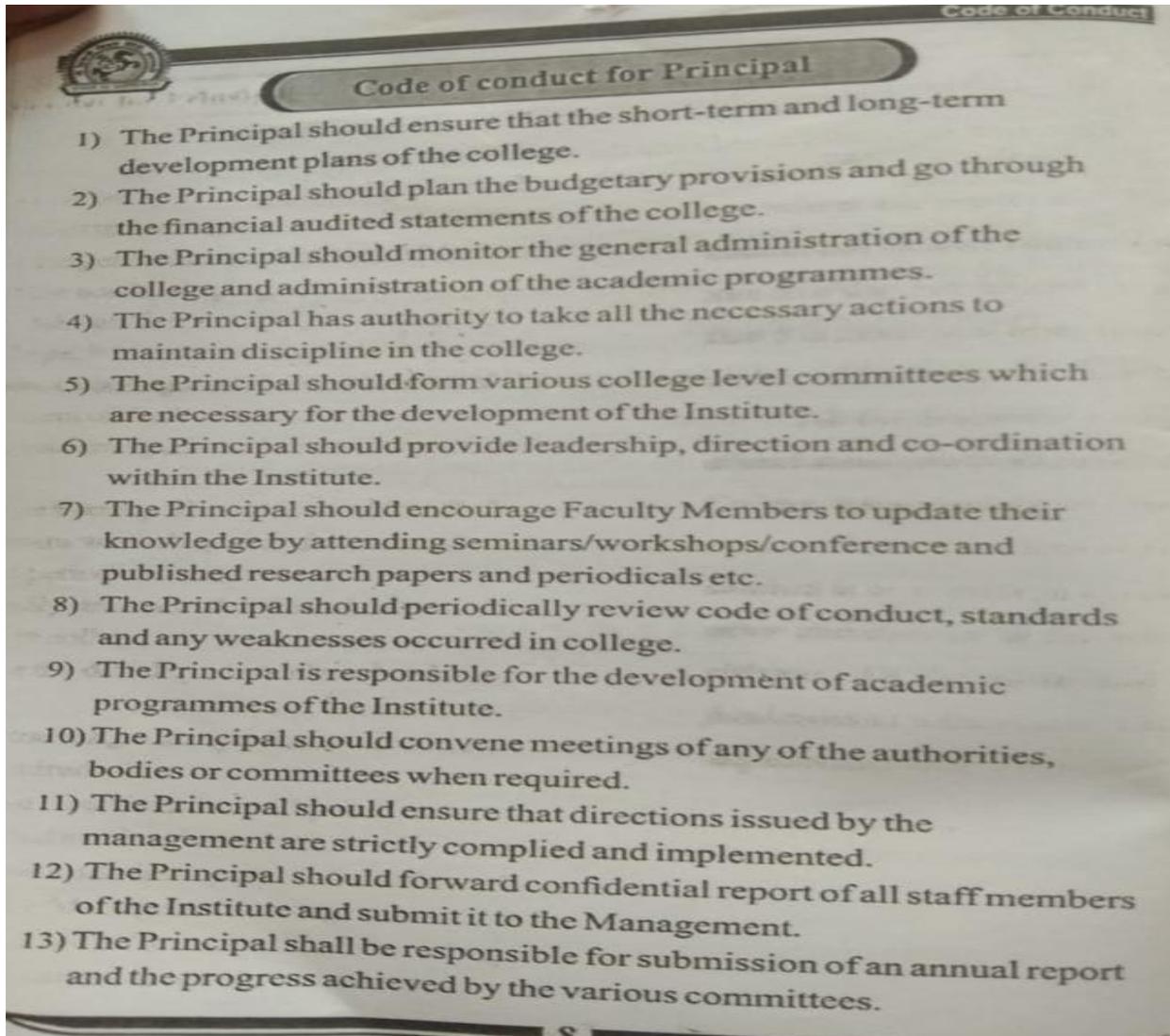


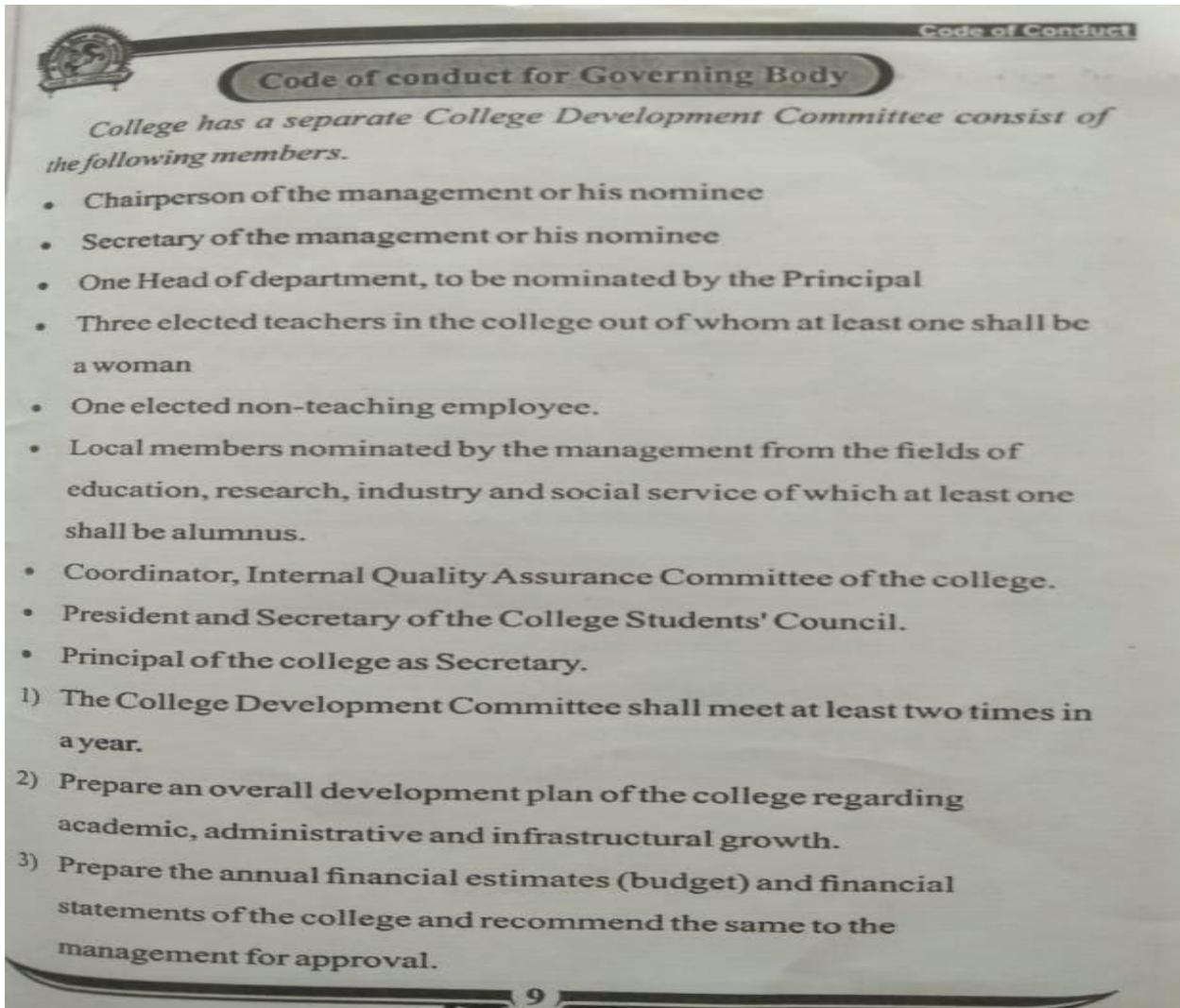
- 10) Every staff should maintain the confidentiality regarding the College's affairs and the affairs of its constituents.
- 11) The Staff should not involve himself/herself in any unethical practice.
- 12) The staff should pay proper attention to slow learners and potential toppers.
- 13) Every Faculty Member should maintain academic record book.
- 14) The staff should make effective use of "Information Communication Technology (ICT)" during lectures.
- 15) Faculty Members should involve them in various research activities of their subject from time to time.

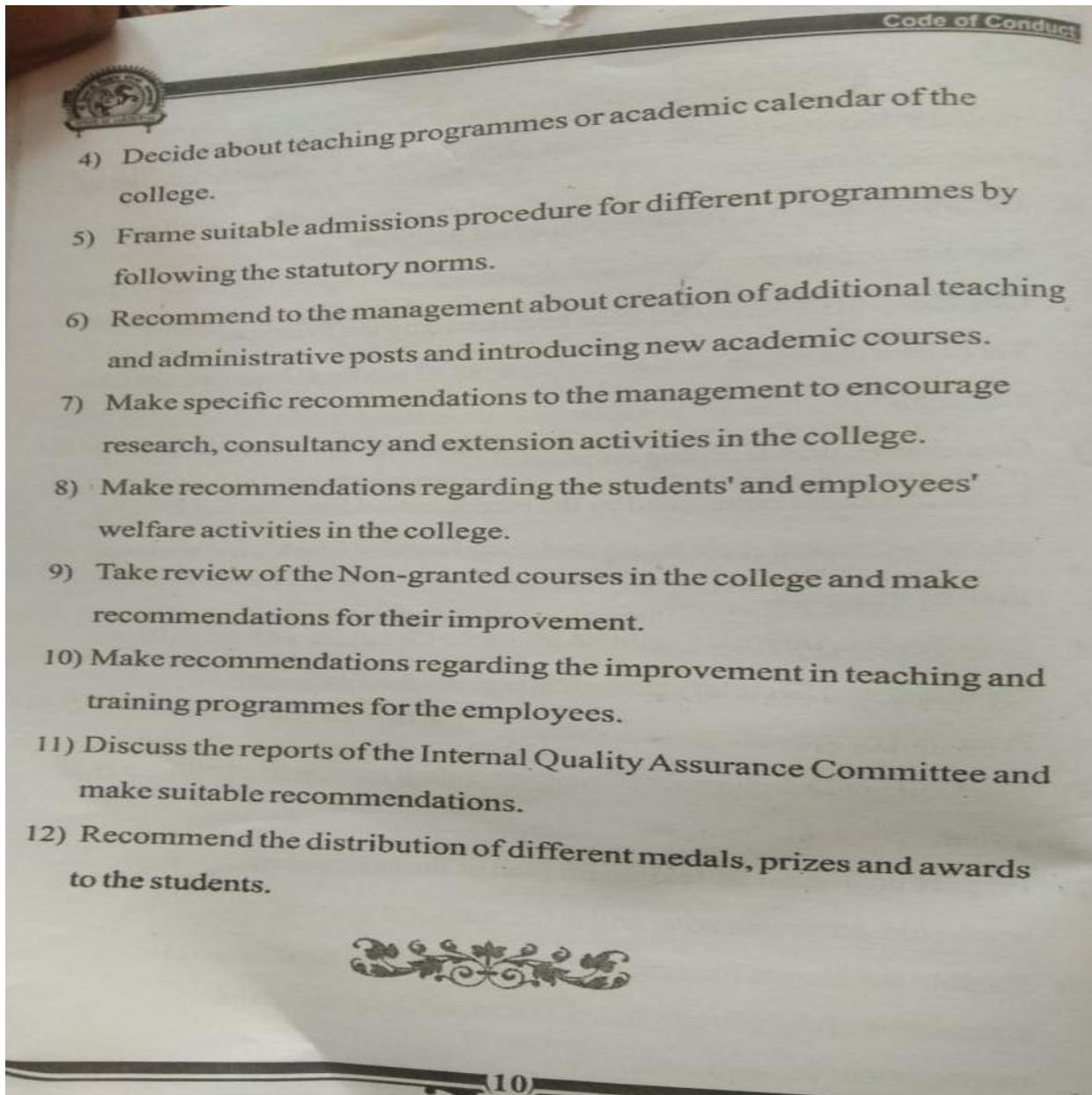




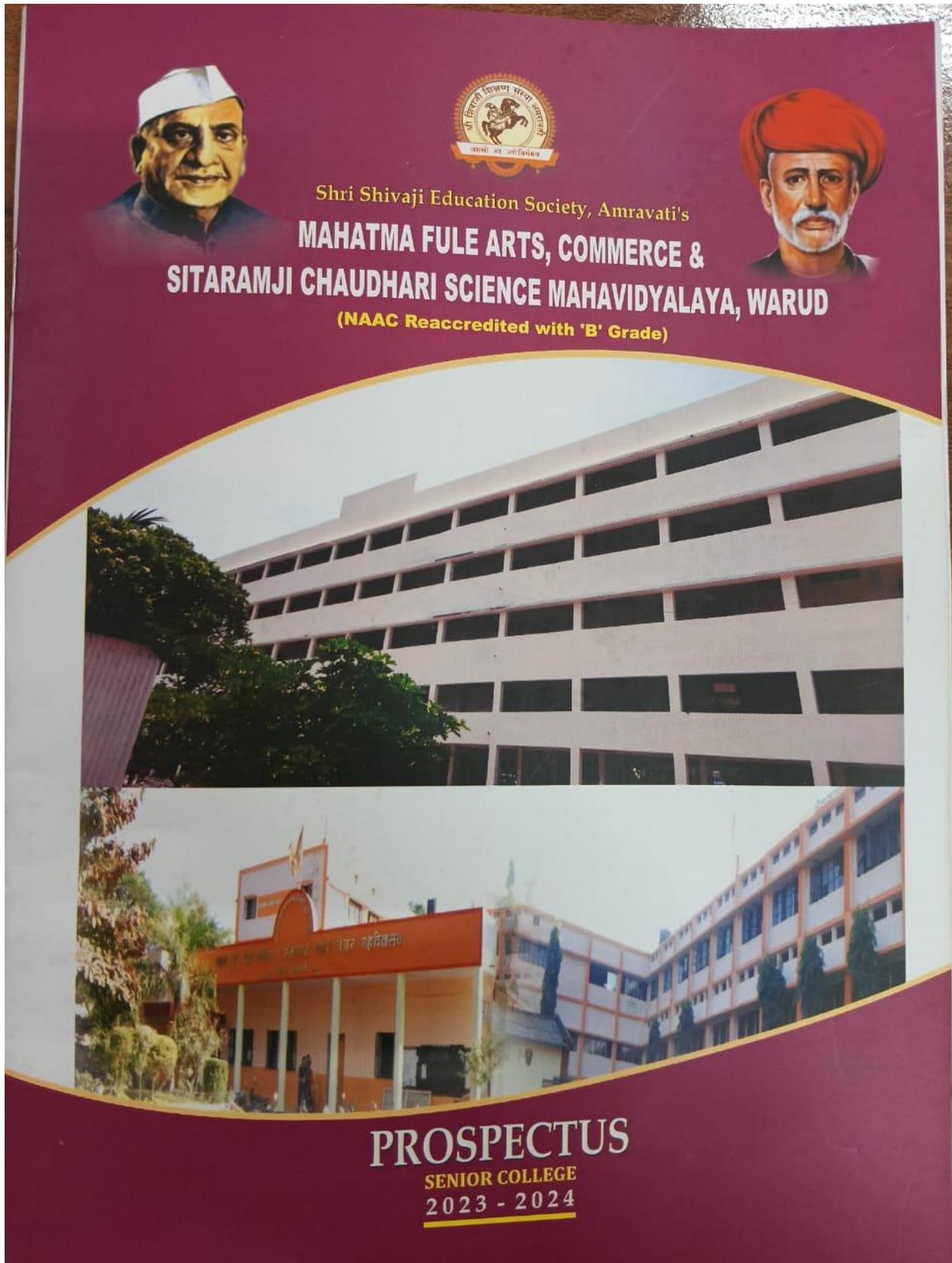









PRINCIPAL
Mahatma Fule Arts, Com. & Sitoromji
Chaudhari Sci. Mahavidyalaya, Warud



Name of the Programs /Courses and Duration

Mahatma Fule Arts, Commerce & Sitaramji Chaudhari Science College, Warud, Dist. Amravati

The Courses Available for the Academic Session 2023-24

U.G. Courses

Arts Faculty (B. A. I, B. A. II, B.A. III)

Compulsory Subjects		English (1001), Marathi (1011)
Optional Subjects	Group A	Marathi Literature (1052), Philosophy (1023), Economics (1022), Political Science (1025)
	Group B	Marathi Literature (1052) OR English Literature (1051), Philosophy (1023), Economics (1022), Home Economics (1113)
	Group C	Marathi Literature (1052) OR English Literature (1051), Philosophy (1023), Economics (1022), Political Science (1025), Home Economics (1113)

Note:

01. Students are required to choose any three optional subjects from Group A or Group B or Group C.
02. Optional Subjects once chosen in B. A. Part I will not be changed in any case in B. A. Part II & B. A. Part III.
03. Girl students may choose Home Economics as a practical subject along with two other optional subjects in Group B.
04. Students scoring not less than 45% marks in XII in English will be allowed to offer English Literature.
05. Students must note that College runs Group C combination of subjects on self-financing basis.
06. Medium of instruction for all groups is Marathi.

Commerce Faculty (B.Com-I, B.Com-II, B.Com.-III)

B. Com. I	SEMESTER : I [01] English (BC 11), [02] Marathi (BC 12), [03] Principle of Accountancy (BC 13), [04] Principle of Business Economics (BC 14), [05] Principle of Business Management (BC 15) [06] Computer Fundamental and Operating System - I (BC 16)
	SEMESTER : II [01] English (BC 21), [02] Marathi (BC 22), [03] Financial Accounting (BC 23), [04] Business Economics (BC 24), [05] Principles of Business organization (BC 25), [06] Computer Fundamentals & Operating Systems - II (BC 26)

<p align="center">B. Com. II (Eng. & Mar. Med.)</p>	<p>SEMESTER : III [01] English [1001],[02] Marathi [1011], [03] Company Accounts [3031],[04] Business Mathematics [3032], [05] Auditing [3033], [06] Monetary System [3034], [07] Information Technology & Business Data Processing - I [3035]</p>
	<p>SEMESTER : IV [01] English [1001], [02] Marathi [1011], [03] Corporate Accounting [3041], [04] Business Statistics [3042], [05] Income Tax [3043], [06] Indian Financial System [3044], [07] Information Technology & Business Data Processing-II [3045]</p>
<p align="center">B. Com. III (Eng. & Mar. Med.)</p>	<p>SEMESTER : V [01] English[1001], [02] Marathi [1011], [03] Cost Accounting [3051], [04] Business Environment [3052], [05] Business Regulatory Framework [3053], [06] Internet & world wide web - I [3058], [07] e-commerce-I [3059]</p>
	<p>SEMESTER : VI [01] English [1001], [02] Marathi [1011], [03] Management Accounting [3061], [04] Economics of Development [3062],[05] Company Law [3063], [06] Internet & world wide web-II[3068], [07] e- commerce -II [3069]</p>

Note : As per directions of the Supreme Court, the subject Environmental Science (EVS) is compulsory for all part II students of UG.

(For B.A., B.Com. & B.Sc.)

General Interest Course (GIC)
First Semester
(Course Code GIC ENG 1.5)
(Soft Skills)

General Interest Course (GIC)
Second Semester
(Course Code GIC ENG 1.6)
(Soft Skills)

Generic Elective
(Discovery of Bharat)
Semester - I & Semester - II

Ability Enhancement Course
(Communication Skills in English)
(Course Code AEC ENG 1.7)
Semester - I

Ability Enhancement Course
(Communication Skills in English)
(Course Code AEC ENG 1.8)
Semester - II

**Mahatma Fule Arts, Commerce &
Sitaramji Chaudhari Science College, Warud, Dist. Amravati**

**Science Faculty
(B. Sc. I, B. Sc. II, B. Sc. III)**

Group A	English, Marathi, Physics, Chemistry, Mathematics
Group B	English, Marathi, Chemistry, Botany, Zoology
Group C	English, Marathi, Physics, Electronics, Mathematics
Group D	English, Marathi, Physics, Mathematics, Computer Science
Group E	English, Marathi, Physics, Electronics, Computer Science

- Note :**
01. Out of the above five groups, one group is to be chosen
 02. English and Marathi languages are prescribed only for B. Sc.-I.
 03. Classes will be conducted in accordance with the semester system.
 04. Computer Science is run on Self-Financing Basis.
 05. Medium of Instruction for all groups is English.

**P.G. Courses in
M. A. English**

M. A. Part I	Semester I	Semester II
	01. History of English Literature- I DSC (DSCENG101) 02. Literary Criticism - I DSC (DSCENG102) 03. Poetry - I DSE (DSEENG103) 04. Drama - I DSE (DSEENG104) 05 Fiction DSE (DSEENG105)	01. History of English Literature- II DSC (DSCENG201) 02. Literary Criticism - II DSC (DSCENG202) 03. Poetry - II DSE (DSEENG203) 04. Drama - II DSE (DSEENG204) 05 Non Fiction DSE (DSEENG205) 06 Practical Criticism OEC-GIC(OECENG206)
M. A. Part II	Semester III	Semester IV
	01. Paper I : Indian Writing in English (2221) 02. Paper II : Critical Theory (2222) 03. Paper III : American Literature - I (2223) 04. Paper IV : African, Afro-American & Latin (2224)	01. Paper I : Indian Writing in English (2231) 02. Paper II: Critical Theory (2232) 03. Paper III : American Literature-II (2233) 04. Paper IV : Colonial & Post-Colonial Studies (2234)

M. A. Marathi

M. A. Part I	Semester I	Semester II
	01. Marathi Vangmayachi Sans. Parshv. (2501) 02. Sahityavichar (2502) 03. Loksahitya (2505) 04. Vishesh Vangmayprakar-Kavita (2506)	01. Marathi Vangmayachi Sans. Parshv. (2511) 02. Samikshavichar (2512) 03. Loksahitya (2515) 04. Vishesh Vangmayprakar-Natak (2517)
M. A. Part II	Semester III	Semester IV
	01. Paper I : Upayojit Marathi (2521) 02. Paper II : Bhasha Vidhnyan (2522) 03. Paper III : Vishesh Granthakar-Sant Chokhamela (2523) 04. Paper IV : Dalit Sahitya (2524)	01. Paper I : Upayojit Marathi (2531) 02. Paper II: Bhasha Vidhnyan (2532) 03. Paper III : Marathi Vaicharik Sahitya (2534) 04. Paper IV : Adiwasi Sahitya (2537)

**Mahatma Fule Arts, Commerce &
Sitaramji Chaudhari Science College, Warud, Dist. Amravati**

M. A. Economics

M. A. Part I	Semester I 01. Micro Economics-I (2301) 02. Macro Economics-I (2302) 03. Statistics for Economics-I (2303) 04. Agriculture Economics (2304) 05. History of Economic Thought (2305)	Semester II 01. Micro Economics-II (2311) 02. Macro-Economics-II (2312) 03. Statistics for Economics-II (2313) 04. Industrial Economics (2314) 05. Urban & Rural Development (2315)
M. A. Part II	Semester - III 01. Economic Growth Development & Planning -I (3111) 02. International Trade and Finance (3112) 03. Labour Economics (3113) 04. Research Methodology (3115)	Semester - IV 01. Economic Growth Development & Planning -II (3121) 02. International Trade and Finance (3122) 03. Busines cycles (3124) 04. Demography (3125)

M. A. Political Science

M. A. Part I	Semester I 01. Indian Political Thought (CO1) 02. Indian Government & Politics (CO2) 03. Public Administration (CO3) 04. International Relations (EO2)	Semester II 01. DSC - I State Politics in India (POLCO1) 02. DSC - II Governance and Public Policy In India (POLC02) 03. DSC- III Major Issues in Contemporary World Politics (POLCO3) 04. DSE-I Political Thought in Maharashtra (POLE01) 05 DSE-II Political Process In India (POLE02) 06 DSE- III Socio-Political Movements in India (POLE03)
M.A. Part II	Semester III 01. Western Political Thought and Theory (2385) 02. Research Methodology (2386) 03. Diplomacy and Indian Foreign Policy (2388) 04. International Law & International Organization (2390)	Semester IV 01. Western Political Thought and Theory (2391) 02. Research Methodology (2392) 03. Diplomacy and Indian Foreign Policy (2394) 04. International Law & International Organization (2396)

Any one from DSE I, DSE II & DSE III paper / course

M. Com. (English Medium)

M. Com. Part I (Semester I)	01. MCOM 11 - Managerial Economics 02. MCOM 12 - Services Marketing & Customer Relationship Management 03. MCOM 13 - Advanced Financial & Cost Accounting 04. MCOM 14 - Banking & Insurance Services
M. Com. Part I (Semester II)	01. MCOM 21 -Accounting for Managerial Decisions 02. MCOM 22 -Strategic Management 03. MCOM 23 Management Concept & Organizational Behavior 04. MCOM 24 Computer Applications in Business
M. Com. Part II (Semester III)	01. RM - Research Methodology (4021) 02. SA - Statistical Analysis (4022) 03. CTPM - Corporate Tax Planning & Management (4023) 04. ECLS -E-Commerce & Legal Security (4024)
M. Com. Part II (Semester IV)	01. ESD - Entrepreneurship & Skill Development (4031) 02. SDM-Sales & Distribution Management (4035) 03. COM-Co-operative Management (4036) 04. IF - International Finance (4037)

M. Sc. (Computer Science)

M. Sc. Part I (Semester I)	01. Computer System Design (1MCS1) 02. Data Structure with OOP (1MCS2)	03. Data base Management Technologies (1MCS3) 04. Computer Networks And Wireless Technology (1MCS4) 05. Management Information System 1MCS6 (4)
M. Sc. Part I (Semester II)	01. Operating System Algorithms (2MCS1) 02. Graphics Application Programming (2MCS2)	03. Software Engineering (2MCS 3) 04. Data Mining And Data Warehousing (2MCS 4) 05 Mobile Computing 2MCS6(4)
M. Sc. Part II (Semester III)	01. Data Mining & Data Warehousing (2901) 02. Computer Graphics (2902)	03. Client Server Computing (2903) 04. Operating System (2904)
M. Sc. Part II (Semester IV)	01. Artificial Intelligence (2911) 02. Design & Analysis of Algorithms (2912)	03. Network Security (2913) 04. Mobile Communications (2914)

**Mahatma Fule Arts, Commerce &
Sitaramji Chaudhari Science College, Warud, Dist. Amravati**

M. Sc. Chemistry

M. Sc. Part I (Semester I)	(01) Inorganic Chemistry (2101) (02) Organic Chemistry-I (2102) (03) Physical Chemistry-I (2103) (04) Modern Methods of Separation (2104) (05) Organic Chemistry Practical-I (3001) (06) Physical Chemistry Practical-II (3002)
M. Sc. Part I (Semester I)	(01) Coordination Chemistry (2111) (02) Organic Chemistry-II (2112) (03) Physical Chemistry-II (2113) (04) Optical Methods & Environmental Chemistry (2114) (05) Physical Chemistry Practical-III (3003) (06) Inorganic Chemistry Practical-IV (3004)
M. Sc. Part II (Semester III)	(01) Spectroscopy-I (2121) (02) Analytical Chemistry-I (Thermal & Electro-analytical Methods (2122) (03) Organic Chemistry: Organic Synthesis-I (2125) (04) Organic Chemistry: Natural Product-I (2116) (05) Inorganic Chemistry Practical-V (3005) (06) Organic Chemistry Practical-VI (3006)
M. Sc. Part II (Semester IV)	(01) Spectroscopy-II (2141) (02) General Analytical Chemistry (2142) (03) Organic Chemistry: Organic Synthesis-II (2145) (04) Organic Chemistry: Natural Product-II (2146) (05) Organic Chemistry Practical-VII (3007) (06) Project (3008)

Post Graduate Department Of Zoology

M.Sc. Part I, Semester-I (CBCS- New)

Sr. No.	Code of the Course/Subject	Title of the Course/Subject
1	1ZOO1	Animal Structure and Function (Non-Chordata)
2	1ZOO2	Animal Structure and Function (Chordata)
3	1ZOO3	Gamete Biology
4	1ZOO4	Genes and Differentiation
5	1ZOO5	Lab I : Practical based on 1ZOO1 and 1ZOO2
6	1ZOO6	Lab II : Practical based on 1ZOO3 and 1ZOO4

M.Sc. Part I, Semester-II (CBCS- New)

Sr. No.	Code of the Course/Subject	Title of the Course/Subject
1	2ZOO1	Molecular Cell Biology
2	2ZOO2	Tools and Techniques in Biology
3	2ZOO3	Endocrinology
4	2ZOO4	Environment and Ecology
5	2ZOO5	Lab III : Practical based on 2ZOO1 and 2ZOO2
6	2ZOO6	Lab IV : Practical based on 2ZOO3 and 2ZOO4

M.Sc. Part II, Semester-III (Old Syllabus)

Sr. No.	Theory / Practical	Title of the Course/Subject
1	Paper - IX	Molecular Cytogenetics - I
2	Paper - X	Molecular Cytogenetics - II
3	Paper - XI	Animal Physiology - I
4	Paper - XII	Animal Physiology - II
5	Practical - V	Based on Paper - IX and X
6	Practical - VI	Based on Paper - XI and XII

M.Sc. Part II, Semester-IV (Old Syllabus)

Sr. No.	Theory / Practical	Title of the Course/Subject
1	Paper - XIII	Biochemistry
2	Paper - XIV	Enzymology and Biostatistics
3	Paper - XV	Animal Physiology - III
4	Paper - XVI	Animal Physiology - IV
5	Practical - VII	Based on Paper - XIII XIV, XV and XVI
6	Practical - VIII	Project

**Post Graduate Department of Botany
M.Sc. Part I (Semester-I)**

Sr. No.	Subject
1	DSC - I : Cell and Molecular Biology
2	AEC - I : Molecular Techniques
3	DSC-II : Evolution and Diversity of Algae & Fungi
4	DSC-III : Economics Botany & Resource Utilization
5	DSC-IV : Plant Development

**Post Graduate Department of Botany
M.Sc. Part I (Semester - II)**

Sr. No.	Subject
1	DSC - V : Plant Physiology
2	AEC - II : Modern Techniques
3	DSC-VI : Evolution and Diversity of Bryophytes & Pteridophytes
4	DSC-VII : Genertics & Plant Breeding
5	DSC-VIII : Plant Biochemistry & Pharmacognosy

**Post Graduate Department of Botany
M.Sc. Part II (Semester - III)**

Sr. No.	Subject	Code
1	DSC - IX : Systematics & Taxonomy of Angiosperms	BOT 301
2	DSC - X : Paleobotany, Evolution and Diversity of Gymnosperms	BOT 302
3	DSE - I :	BOTE-I 301 to 308
4	DSE - II :	BOTE-II 301 to 308
5	Lab-5 Practical Based on DSE IX & X	BOL 301
6	Lab-6 Practical Based on DSE I & II	BOL 302-309
7	Open Elective/GIC/Open Skill/MOOC Post Harvest Technology	OEC-I 303

**Post Graduate Department of Botany
M.Sc. Part II (Semester - IV)**

Sr. No.	Subject	Code
1	DSC - XI : Applied Botany	BOT 401
2	DSC - XII : Plant Ecology	BOT 402
3	DSE - XIII : Environmental Ecology	BOT 403
4	SEC-1 : Plant Biotechnology & Genetic Engineering	BOTS 401
5	Lab-7 Practical Based on DCS XI, XII, XIII and SEC-I	BOL 401
6	Lab-8 Practical Based on Project	BOL 402
7	Open Elective/GIC/Open Skill/MOOC Gardening & Landscaping	OEC- 401

Post Graduate Department of Physics

M.Sc. Semester - I

1 Phy1	Mathematical Physics
1 Phy2	Classical Mechanics
1 Phy3	Quantum Mechanics-I
1 Phy4	Computational Methods and programming
1 Phy5	LABORATORY COURSE-1
1 Phy6	LABORATORY COURSE-2

M.Sc. Semester - II

2 Phy1	Electrodynamics-I
2 Phy2	Quantum Mechanics-II
2 Phy3	Solid State Physics
2 Phy4(i)	Net work Theorems and Solid State Devices
2 Phy4 (ii)	Electrodynamics-I
2 Phy5	LABORATORY COURSE-1
2 Phy6	LABORATORY COURSE-2

M.Sc. Semester - III

3 Phy1	Electrodynamics-II (Radiation & Plasma Physics)
3 Phy2	Statistical Mechanics
3 Phy3	Atomic & Molecular Physics
3 Phy4(i)	Digital Techniques
3 Phy4(ii)	Condensed ,matter Physics-I
3 Phy4(iii)	Analogue Communication
3 Phy5	Labon elective (Specialization)
3 Phy6	Review+Seminar Report Evaluation Survey

M.Sc. Semester - IV

4 Phy1	Nuclear & Particle Physics
4 Phy2	OPAMP theory and applications
4 Phy3(i)	Micro-Processor Programming and Interfacing
4 Phy3(ii)	Condense Matter Physics-II
4 Phy3(iii)	Digital Communication
4 Phy3(iv)	Photonics - II
4 Phy4(i)	Advance Microprocessors and Microcontrollers
4 Phy4(ii)	Nano-science and Nanotechnology
4 Phy5	Lab on elective (Specialization)

**Post Graduate Department of Mathematics
M.Sc. Part I (Semester-I)**

Sr. No.	Code of Subject/ Mathematics	Code (old)	Title of Course/Subject
1	DSC-I	3211	Real Analysis
2	DSC-II	3212	Advanced Abstract Algebra (AAA)
3	DSC-III	3213	Complex Analysis
4	DSC-IV	3214	Topology-I
5	DSC-V	3215	Advanced Discrete Mathematics-I (Optional)
6	DSC-V	3215	Different Geometry (Optional)
7	AEC on DSC-I MTH-I		AEC On Real Analysis

M.Sc.I (Mathematics) Semester - II

Sr. No.	Code of Subject/ Mathematics	Code (old)	Title of Course/Subject
1	DSC-I	3221	Measure and Integration Theory
2	DSC-II	3222	Advanced Linear Algebra And Field Theory
3	DSC-III	3223	Integral Equations
4	DSC-IV	3224	Topology-II
5	DSC-V	3225	Advanced Discrete Mathematics-II (Optional)
6	DSC-V	3225	Riemannian Geometry (Optinoal)

M.Sc. Part - II (Mathematics)

Semester III : Compulsory Papers

Paper	3MTH-1 :	Functional Analysis - I
Paper	3MTH-2 :	Advanced Mechanics
Paper	3MTH-3 :	Operations Research

Optional Papers : Choose Any Two.

Paper	3MTH-4 :	i) General Relativity
Paper	3MTH-5 :	ii) Fluid Dynamics - I
		iii) Difference Equations - I
		iv) Advanced Complex Analysis
		v) Banch Algebras - I

M.Sc. Part- II Semester- IV : Compulsory Papers

Paper	4MTH-1 :	Functional Analysis - I
Paper	4MTH-2 :	Partial Differential Equations
Paper	4MTH-3 :	Numerical Analysis

Optional Papers : Choose Any Two

Paper	4MTH-4 :	i) General Cosmology
Paper	4MTH-5 :	ii) Fluid Dynamics - II
		iii) Difference Equations - II
		iv) Lie Groups
		v) Banch Algebras - II

- Note:** 1) Post-Graduate Classes for all the subjects will begin in the noon-shift from 02.40 P.M. onwards
 2) The Title of Papers, Its codes may be subjected to Time to Time changes as per UGC, Govt. & University Rules, Regulations & Directions.

Add On Courses

College offers Add On Courses in the Following Subjects

Sr. No.	Subjects
01	Bio-Medical Laboratory Techniques
02	Communication Skills in English
03	Bio-Technology




 PRINCIPAL
 Mahatma Fule Arts, Com. & Sitaromji
 Chaudhari Sci. Mahavidyalaya, Warud

IQAC in Quality Assurance

The institution is governed and managed through proper structural mechanism guided by its mission, vision and quality improvement policies. The IQAC works through 39 college committees in decentralized and participative mode towards enhancement of quality of education. This assures the consistency in the quality of education delivered by the institution.

1. PowerPoint Presentations by HODs and Conveners of Support Services.
2. Submission of AQAR.
3. Feedback from various Stakeholders.
4. ICT Orientation for Students and Teachers.

Some of the regular activities conducted by the IQAC every year consist of

Year	Name of quality initiative
2023-24	Academic and Administrative Audit
	Seminar

In order to make the quality, the IQAC Coordinator maintains minutes of all the meeting which are regularly held. This acts as a reminder to all the institutional stakeholders and decision-makers to undertake relevant activities and programmes.

Program outcomes, program specific outcomes and course outcomes for all programs offered by the Institution are stated and displayed on website and communicated to teachers and students

Response:

The college has been successfully running programmes like viz: **BA, B.Com, B.Sc., M.Com, M.A.** (Economics, English, Marathi, Political Science), **M.Sc.** (Chemistry, Computer Science) **Ph.D.**

The institute is affiliated to Sant Gadge Baba Amravati University, Amravati. Affiliated university has mentioned the Cos, POs and PSOs in the syllabus of various faculties/subjects. We follow the same Cos, POs and PSOs at our institutional level.

Bachelor of Arts (B.A)

English-

(PSOs)

1. Comprehend various forms of literature like Prose, Poetry, Drama and Fiction.
2. Develop the knowledge of grammatical system.
3. Develop four language skills Learning, Speaking, Reading and Writing.
4. Widen scope of employability and Entrepreneurship viz. Teaching, Civil Services and Creative Writing.

(COs)

1. Understand the basic knowledge of English language and literature
2. Understand the relation between literature and real life.
3. Understand and interpret the prose, poem, short stories
4. Write the News Report, Letter, Essay, Paragraph etc.
5. Avail the pleasure of literary forms such as Novel, Poem, Play etc.
6. Develop interview technique, Reading Skills, Writing Skills and Speaking Skills.
7. Enhance the interest in English Language.

English Literature-

(PSOs)

1. Understand Literary Movements that existed in different ages.
2. Define Literary Theories and Terms in Criticism.
3. Develop reading, writing and analytical skills.
4. Communicate their ideas critically and creatively.

(COs)

1. Analyse various forms of literature.
2. Acquaint them with the forms of structures and aesthetics of style and techniques of literary works.
3. Analyse various elements of literature.
4. Communicate in English orally and in writing.
5. Kindle their critical thinking skills.

P.G. ENGLISH-

(POs)

1. To educate students in English literary and critical writing with a view to enable them to probe literary & critical theories & contexts that require substantive expertise in literature.
2. To develop and foster ideological sense and a sense of social awareness and cultural understanding.
3. To acquire proficiency in expression skills and critical thinking skills through exposure to various forms & genre of writing.
4. To develop research, critical and analytical attitude & approach in the students.
5. To help emerge social thinkers & critics who can take up a study of various social problems and issues that ail the society and impede social change and progress and contribute to the process of social transformation and social progress.
6. To help grow great leaders, thinkers, artists, visionaries, pundits / experts, educationists, managers, consultants, guides, coaches, social analysts, reformers, social activists, social

pleaders & crusaders, think-tanks, journalists, critical and creative writers professionally in various fields of knowledge.

CO 1.

1. Students will be acquainted with field of Research.
2. Students will derive practical experience from Research Work.
3. Research skills will be honed through practical research experience.
4. Students will get motivation for further research work like PhD.

PSO –

1. To develop a sense of history through understanding of major traditions, trends, conventions, fashions as well as social developments.
2. To facilitate insight into human nature as well as understanding of social norms and culture.
3. That the causes and consequences of human actions and dispositions.
4. To study the emergence and development of Renaissance and its influence on the English society.
5. To assimilate the values and principles that lead to progress and social well-being.

Course Outcome (CO):

1. The student will attain a sense of history and the impulses behind human action.
2. To gain critical understanding and insight into trends & fashion in English society and culture.
3. Understanding the factors behind the emergence of John Milton as well as other post Shakespearean writers and value and significance of their literary output.
4. To critically analyse the chronology of events that led to the rise and growth of post Shakespearean writers.
5. To improve one's performance in competitive exams like MPSC/UPSC/NET/SET.
6. To create good critical thinkers and writers.

PSO–

- 1) To appreciate and analyse critical texts and documents.
- 2) To acquire critical temper, insight and judgment.
- 3) To apply logic, reasoning and sense of discrimination in decision-making.
- 4) To foster erudition and intellectual scholarship.

Course Outcome (CO):

- 1) To be able to write critical and scholarly reviews and articles.
- 2) To analyse and interpret texts and grasp subtle and deep meaning embedded in the texts.
- 3) To compare and contrast different ideas logically and rationally.
- 4) To apply critical sense & competence and critical scholarship to form an informed opinion.

Philosophy –

(PSOs)

1. To develop the insight among students about Fundamentals of Indian and Western Philosophy
2. To create an interest among the students about various Indian and Western Schools.
3. To classify between Indian and Western Philosophical thoughts.
4. To inculcate and develop Ethical Values among the students.
5. To apply the various Moral Values in day to day life.
6. To analyze the moral thoughts of Contemporary Indian Saints.

(COs)

- 1.To create insight about Nature of Philosophy.
- 2.To develop understanding of Branches of Philosophy.
- 3.To identify various isms in Philosophy.
- 4.To develop insight into Orthodox and Heterodox Schools and Contemporary Indian Philosopher.
- 5.To Evaluate Ancient, Medieval and Modern Western Philosophy and Contemporary Western Philosopher.

Economics-

(PSOs)

- 1.Problem analysis: recognize formulate and study the problems of various sectors of the Indian economy, regional economy and the global economy with the help of the economic ways of thinking, theories, concepts and laws.
- 2.Apply the knowledge of economic concepts, laws and theories, for a better economic environment for the society at large.
- 3.Communicate effectively on the economic activities with the community and the society through the acquiring knowledge of the national and the global economy.
- 4.To build on these concepts to develop deeper understanding of Economy in the future.
- 5.Explain the basic concepts, laws and theories related to the economic behavior of the human being.
- 6.Graduates from our department are effectively taught and explained the cause with the help of visual aids like white board and PowerPoint Presentation.
- 7.They will be able to visualize the real world situation and enhance them to initiate the programmers for pursuing studies and be alert with the importance of entrepreneurial skills for their self-employment, to improve the general attitudes and living conditions of the masses.

(COs)

- 1.Apply knowledge and skill in the field of Economics and will be able to have the employability in these areas.
- 2.Describe and apply the methods for analysing consumer behaviour through demand and supply, elasticity.
- 3.Perform analysis to analyse the impact of economic events on Markets,
- 4.To create a new approach towards the study of Economics.
- 5.The course will illustrate how microeconomic concepts can be applied to analyze real-life situations
- 6.Analyse the performance of firms under different market structures,
- 7.Evaluate the factors affecting firm behavior, such as production and costs
- 8.To have better awareness regarding different Factors Pricing Rent, Wages, Interest, and Profit.

P.G. ECONOMICS –

(POs)

- 1.To analyse the Economic Issues related to local to global scenarios.
- 2.This programme helps to understand the various Social, Political and Economic Institutions.
- 3.Applying their knowledge to assess issues in fields of agriculture, industry, banking ,finance environmental and societal issues to provide practical solutions.

4. Formulate and execution of field study, and an industrial visit to get practical exposure to the latest issues.
5. To understand how economic policies affect the common people through interactions.
6. To utilize the research spheres of Economics.

(PSOs)

1. Helps to understand the basic theories of economic growth and development.
2. Students will be able to understand the working principles of Money Market and Capital Market.
3. Students should be able to develop knowledge about production, demand, market and pricing.

Course outcome's(Cos):

After completion of this course the Student will be able to-

- 1) Cite the basic principles of Economic Growth.
 - 2) Interpret the concepts of Development and Planning.
 - 3) Apply these concepts to Solve and analyse various problem in Social & Institutional Aspect.
 - 4) Cite the theories of development.
 - 5) Interpret and Understand the development & Growth model.
- 1) Students learned about the classical theory International Trade.
 - 2) Students were introduced to the modern theory of International Trade.
 - 3) Students realised the gains of International Trade.
 - 4) Students noticed the relationship between International Trade and economic development.
 - 5) Students come to know about balance of payment.
- 1) Students learn the features of Indian Economy.
 - 2) Students get an idea of Indian Poverty, unemployment and Income .
 - 3) Students realised the agriculture policy.
 - 4) Students understood the Industrial Policy.
- 1) Understand Concepts, types, importance of labour and labour economics .
 - 2) Gain a deeper understanding of mobility, efficiency of labour and causes and effects of unemployment.
 - 3) Understand the wage determinants & wage Policy in India.
 - 4) Analyze consequences of absenteeism and trends and effects of Labour migration.
 - 5) Get aware of Indian Labour market and issues their in.
- 1) To understand the formulation and identification of the research problem.
 - 2) This course will help them to Select an appropriate research design.
 - 3) With the help of this course students will be able to take up and implement a research project / study.
 - 4) The course will also enable them to collect the data, edit it properly analyses it accordingly Thus it will facilitate students prosperity in higher education.
 - 5) Students will be able to demonstrate the ability to choose methods appropriate to research objectives.

Course Outcomes: M.A.II

After the completion of course the Student will be able to.:

- 1) Students get an idea about economic planning.
- 2) Students understood the theory of economic development.

- 3) Students got to know the pectoral aspects of economic development.
- 4) Students noticed the relationship between international trade and economic development.
- 5) Students realised the economic development policy,
 - 1) Students got to know about India's international trade policy.
 - 2) Students get an idea of regional economic blocks.
 - 3) Students came to know about WTO.
 - 4) Students Understood the foreign Capital
 - 5) Students realised the functions of MNCs
- 1) Students gained knowledge of balance of Payment and trade policy.
- 2) Students learned about foreign capital, exchange and multinational corporation.
- 3) Students realized the impact of globalizations.
- 4) Students were introduced to the monetary and fiscal Policy.
- 5) Students got the idea of economic planning and policy
 - 1) To understand the nature of Business cycle.
 - 2) To know features of Business Cycle in 20th Century.
 - 3) To know theories of Business cycle.
 - 4) To understand the policies for controlling.
5. The student realized the Contribution of various economist in business cycle Controlling and forecasting.
 - 1) To understand the formulation and identification of the research problem.
 - 2) This course will help them to Select an appropriate research design.
 - 3) With the help of this course students will be able to take up and implement a research project / study.
 - 4) The course will also enable them to collect the data, edit it properly analyses it accordingly Thus it will facilitate students prosperity in higher education.
 - 5) Students will be able to demonstrate the ability to choose methods appropriate to research objectives.
 - 6) To explore various aspects of the population policy and to study its Impact on socio economic issues.

Political Science- (PSOs)

1. To understand the basic structure of Indian political system
2. To Inculcate interest in political field
3. To create the leadership qualities in students
4. To understand Indian governing system

(COs)

1. Understand and explain the significance of Indian constitution as the fundamental law of the land.
2. To know the making process of the constitution and salient features of Indian constitution.
3. Exercise the fundamental rights in proper sense at the same time identifies his responsibilities in national building.
4. Analyze the Indian Political System, the powers and functions of the Union, State Government in detail.

5. Critically analyzing the important institutions of Indian Union: The Executive: President, Vice-President, Prime Minister, Council of Ministers, State Executive: Governor, Chief Minister, Council of Ministers, The Legislature: Rajya Sabha, Lok Sabha, State Legislature, The Judiciary: Supreme Court and High Court: Composition and jurisdictions.

6. To make conscious of the social, cultural, economic and political environment that affects politics in India, at the national as well as regional levels.

P.G. Political Science-

POs :

1. Familiarity with different approaches to the study of Political Science and an ability to apply this to contemporary political problems.
2. An ability to formulate and construct logical argument about political phenomena.
3. Comprehend the basic structure and functions of government systems and theoretical understandings.
4. Analyze political problems, argument, information, theories.
5. Apply methods appropriated for accumulating and interpreting data which is applicable to political science.
6. An ability to analyze the election data and to develop leadership qualities among students.

PSOs:

1. Students will gain the ability to discuss about Indian Constitution and Political process and grasp knowledge of provisions in world Politics.
2. Students will learn about the various western Political thoughts.
3. Students are acquainted with the Indian political thoughts and western political thought and various ideologies such as Feminism, Liberalism, Socialism, Environmentalism etc.
4. Students are acquainted with the theories and aspects of international relations, nonalignment movement, new world economic order etc.
5. Students will learn about the political process in world and will be get acquainted with Governance and public policy across world.
6. Students will be able to develop leadership qualities and Election analysis.
7. Students will have the understanding of the nature and developments in national and international politics.

Home-Economics-

(PSOs)

1. Describe the home management process and apply it in practice for planning and executing inside and outside the home
2. Play model role as a home maker, home manager, home Scientist, counselor as well as play a different role in different kinds.
3. Build Confidence to create her own business and adjust in it better way.
4. Derive certain changes in behavior and attitudes that require for effective communication and as a Entrepreneur.

(COs)

1. Explain about Function of Food.
2. Define Protecting & Regulating Nutrients.
3. Communicate the function and sources of Plant & Animals Food.
4. Apply Principals of Food Preservation while handling Methods.

B.Com. course:

(PSOs)

- 1.To enhance competency levels of learners.
- 2.To develop entrepreneurial and analytical skills in finance and accounts etc.
- 3.To instil managerial and global skills.
- 4.To get gainful employment in Banks, Insurance company, Industries, Government departments etc.

B.Sc. course:

Botony-

(POs)

1.Critical Thinking: Take informed actions after identifying the assumptions that frame our thinking and actions, checking out the degree to which these assumptions are accurate and valid, and looking at our ideas and decisions (intellectual, organizational, and personal) from different perspectives.

2.Effective Communication: Speak, read, write and listen clearly in person and through electronic media in English and in one Indian language, and make meaning of the world by connecting people, ideas, books, media and technology.

3.Social Interaction: Elicit views of others, mediate disagreements and help reach conclusions in group settings.

4.Effective Citizenship: Demonstrate empathetic social concern and equity centred national development, and the ability to act with an informed awareness of issues and participate in civic life through volunteering.

5.Ethics: Recognize different value systems including your own, understand the moral dimensions of your decisions, and accept responsibility for them.

6.Environment and Sustainability: Understand the issues of environmental contexts and sustainable development.

7.Self-directed and Life-long Learning: Acquire the ability to engage in independent and life-long learning in the broadest context socio-technological changes.

(PSOs)

- 1.Identify major groups of plants and compare the characteristics of lower(microbes, algae ,fungi, bryophytes and pteridophytes) and higher(Gymnosperms and angiosperms).
- 2.use evidence based comparative botany approach to explain the evolution of organism and understand the genetic diversity.
- 3.explain various plant processes and functions, metabolism, concepts of gene, genome and how organism's function is influenced at the cell, tissue and organ level.
- 4.understand adaptation, development and behavior of different forms of life.
- 5.demonstrate the experimental techniques and methods of their area of specialization in Botany.

P.G.BOTONY-

POs-

1. To equip students with strong fundamentals in subject domain knowledge.
2. To attract students in all the areas of plant science with unique combination of core, elective papers.

3. Students can explore the cutting-edge technologies and skills currently used in plant sciences.
4. They are made aware of social, environmental issues and plant significance in natural interest.
5. To create interest in nature conservation and save the natural resources.
6. Focus is equally given on labour work as well as field work.
7. To work together as a team along with other branches of life sciences without any complex.
8. To develop scientific temperament and research attitude and much for society.

PSOs -

1. To equip the students with the fundamental concepts of plant sciences.
2. To understand the basics of structure and functions of cells.
3. To learn the process of growth and development of plants.
4. To study the evolutionary process from lower to higher plants.
- 2 1. To study the concepts of genetics, plant breeding and their applicability.
2. To understand and correlate the various biochemical and physiological processes in plants.
3. To study the evolutionary process in Bryophytes and Pteridophytes.
4. To study the bioactive principles in plants and their defense mechanisms.

Cos:

1. The ultimate aim of taxonomy is to understand the evolution at work. Angiosperms being the dominant as well as most evolved plant group, the sources of characters for taxonomy are also varied.
2. It is also being practiced at various levels, from morphology to phylogenetic. This course aims to give comprehensive understanding in angiosperm taxonomy as well as its practice and applications.

Cos:

1. To understand the phylogenetic significance of Gymnosperms.
2. To illustrate the diversity of past vegetation.
3. To know the distribution and economic potential of gymnosperms.
4. To contribute to the ancestry of present day dominant vegetation: Angiosperms.
5. To understand the significance of past vegetation in the formation of fossil fuel.

COs:

- 1) Study plant morphology, Description of a plant specimen, Study of locally available families of flowering plants, Identification of genus and species of locally available wild plants.
- 2) Appreciate the need to conserve floristic and cultural diversity of the region.
- 3) Preparation of botanical keys at generic level by locating key characters.
- 4) To develop laboratory skill like isolation, extraction & evaluation of phytochemicals from medicinal plants.
- 5) To develop knowledge of herbal drugs and new commercial plant products.
- 6) Rescue and document Ethno botanicals for sustainable use of plant resources.

Chemistry-

(POs)

1.Critical Thinking: Take informed actions after identifying the assumptions that frame our thinking and actions, checking out the degree to which these assumptions are accurate and

valid, and looking at our ideas and decisions (intellectual, organizational, and personal) from different perspectives.

2.Effective Communication: Speak, read, write and listen clearly in person and through electronic media in English and in one Indian language, and make meaning of the world by connecting people, ideas, books, media and technology. Social Interaction: Elicit views of others, mediate disagreements and help reach conclusions in group settings.

3.Effective Citizenship: Demonstrate empathetic social concern and equity centred national development, and the ability to act with an informed awareness of issues and participate in civic life through volunteering.

4.Ethics: Recognize different value systems including your own, understand the moral dimensions of your decisions, and accept responsibility for them.

5.Environment and Sustainability: Understand the issues of environmental contexts and sustainable development. Self-directed and Life-long Learning: Acquire the ability to engage in independent and life-long learning in the broadest context socio-technological changes.

(PSOs)

Upon completion of the programme successfully, the learners would be able to-

- 1.Understand the scope, methodology and application of modern chemistry.
- 2.Apply theoretical and practical concepts of instruments that are commonly used-in most chemistry field.
3. Plan and conduct scientific experiments and record the results of such experiments.
- 4.Get acquainted with safety of chemicals, transfer, and measurements of chemicals, preparation of solutions, and using physical properties to identify compounds and chemical reactions.
- 5.Describe how chemistry is useful to solve social, economic and environmental problem and issues facing our society in energy, medicine, and health.

P.G. Chemistry-

(POs)

1.Deep subject Knowledge and intellectual breadth - Apply the subject knowledge to the solution of real-world problems.

2.Professional Ethics - Apply ethical principles and commit to professional ethics and responsibilities and norms of the standard practices.

3.Creative & Critical Thinking - Take informed actions after identifying the assumptions that frame our thinking and actions, checking out the degree to which these assumptions are accurate and valid, and looking at our ideas and decisions (intellectual, organizational, and personal) from different perspectives.

4.Innovation, Research and Problem Solving - Identify, formulate, review research literature, and analyze complex problems reaching substantiated and innovative conclusions. Design solutions for complex problems with appropriate consideration for the public health and safety, and the cultural, societal, and environmental considerations. Use research-based knowledge and research methods to provide valid conclusions. Demonstrate the knowledge of, and need for sustainable development.

4.Team work and Communication Skills - Function effectively as an individual, and as a member or leader in diverse teams, and in multidisciplinary settings. Present/communicate research at national/international level, write effective articles, reports and design

documentation, make effective presentations, and give and receive clear instructions. Communicate disciplinary knowledge to the community and broader public.

(PSOs)

1. observe, analyze and interpret chemical phenomena and process
2. design and develop new molecules/processes with industrial and societal applications
3. formulate new ideas/concepts in chemical sciences and test them
4. communicate effectively the principles and practice of chemical sciences
5. address issues of environment, health and development from a chemical perspective
6. To impart knowledge of various aspects of industry.

Course Outcomes(Cos):

At the end of the course, students will be able to:

1. apply spectroscopic techniques such as Microwave spectroscopy, Raman, UV, IR and other spectroscopic methods for structure determination.
2. compute approximate wavelength regions for different types of transitions involved in UV spectroscopy.
3. deduce structures and reactivity patterns of organic, organometallic, and inorganic materials using spectroscopic data.
4. elucidate the structure of organic and inorganic compounds using spectroscopic methods.
5. utilizes zero-field spectra in Mossbauer spectroscopy to determine oxidation state, spin state, and coordination geometry.

Course Outcomes:

At the end of the course students will be able to

1. Apply the principles of diffraction techniques, including X-ray diffraction, electron diffraction, and neutron diffraction, and their applications in structural analysis.
2. Explain the principles of electron diffraction, including scattering intensity and the Wierl equation, and utilize them to elucidate the structure of simple gas-phase molecules and surfaces.
3. Explain the principles of ion-selective electrodes, including the glass electrode and solid-state electrodes, and utilize them for selective ion measurements.
4. Demonstrate knowledge of coulometer, including coulometer at constant current and constant potential, and perform bolometric titrations for analysis.
5. Implement laboratory safety protocols, including safe working procedures, protective apparel, emergency procedures, and first aid.
6. Describe the principles and classification of chemical weapons, including their physical and chemical properties and toxicity.
7. Identify and explain the given scientific problems based on an advanced analytical approach.
8. Design and specify applications of advanced analytical techniques in various fields and develop capability to apply different techniques to assess physicochemical properties.

Course Outcomes:

At the end of the course students would be able to-

1. Describe the principles and concepts of bio-inorganic chemistry, including the role of inorganic elements and compounds in biological systems.
2. Describe the coordination chemistry of metal ions in biological processes, such as metalloenzymes, metalloproteinase, and metalloco factors.
3. Explain the biochemical processes involving essential inorganic elements, including their transport, uptake, and metabolism in living organisms.
4. Analyze the electronic structure, bonding, and spectroscopic properties of metal complexes in biological systems.
5. Analyze the interplay between bio-inorganic chemistry and other areas of chemistry and biology, such as bioorganic chemistry, medicinal chemistry, and environmental chemistry.
6. Apply the principles of chelate therapy to propose rational solutions and approaches for addressing biological and biomedical challenges, such as drug design, metal toxicity, and biomaterials development.

Course Outcomes:

Upon successful completion of a course the students will be able to:

1. Develop a comprehensive understanding in research and advancements in the field of organic chemistry.
2. Modify the method to solve complex synthetic problems.
3. Appraise various synthesis and transformation processes.
4. Develop understanding to write the product with proper stereochemistry.
5. Devise problem-solving skills and critical thinking ability through the analysis of complex reaction mechanisms.

Computer Science – (POs)

1.Critical Thinking: Take informed actions after identifying the assumptions that frame our thinking and actions, checking out the degree to which these assumptions are accurate and valid, and looking at our ideas and decisions (intellectual, organizational, and personal) from different perspectives.

2.Effective Communication: Speak, read, write and listen clearly in person and through electronic media in English and in one Indian language, and make meaning of the world by connecting people, ideas, books, media and technology.

3.Social Interaction: Elicit views of others, mediate disagreements and help reach conclusions in group settings.

4.Effective Citizenship: Demonstrate empathetic social concern and equity centred national development, and the ability to act with an informed awareness of issues and participate in civic life through volunteering.

5.Ethics: Recognize different value systems including your own, understand the moral dimensions of your decisions, and accept responsibility for them.

6.Environment and Sustainability: Understand the issues of environmental contexts and sustainable development.

7.Self-directed and Life-long Learning: Acquire the ability to engage in independent and life-long learning in the broadest context socio-technological changes.

(PSOs)

At the end of this program, the students would be able to:

- 1.Understand the computer hardware and software.
- 2.Use the knowledge of software installation.
- 3.Select modern computing tools and techniques for programming task.
- 4.Identify, analyze, formulate and develop computer-based solutions to meet desired needs within realistic constraints.
- 5.Develop databases and perform operations on them.
- 6.Identify research and development areas in multiple disciplines.
- 7.Design and develop the small web applications.

M.Sc.- Computer Science-

(POs)

1.Problem Analysis Identify, formulate, review research literature and analyze complex engineering problems in Computer Science and Engineering reaching substantiated conclusions using first principles of mathematics, natural sciences and engineering sciences.

2.Design / Development of Solutions Design solutions for complex engineering problems and design system components or processes of Computer Science and Engineering that meet the specified needs with appropriate consideration for public health and safety, cultural, societal and environmental considerations.

3.Conduct Investigations of Complex Problems Use research-based knowledge and research methods including design of experiments in Computer Science and Engineering, analysis and interpretation of data, and synthesis of the information to provide valid conclusions.

4.Modern tool usage Create, select and apply appropriate techniques, resources, and modern engineering and IT tools including prediction and modeling to complex activities related to Computer Science with an understanding of the limitations.

5.The services to the society Apply reasoning informed by the contextual knowledge to assess societal, health, safety, legal and cultural issues and the consequent responsibilities relevant to the professional engineering practice in Computer Science and Engineering.

6.Project Management Demonstrate knowledge and understanding of the computer science and management principles and apply these to one's own work, as a member and leader in a team, to manage projects and in multidisciplinary environments. PROGRAMME SPECIFIC OUTCOMES (PSOs) Upon completion of the programme successfully,

(PSOs)

1.Deliver efficient solutions for emerging challenges in the computation domain through continuous learning.

2.Design, develop, implement computer programs and use knowledge in various domains to identify research gaps and hence to provide solution to new ideas and innovations.

Electronics- (POs)

- 1.Utilize the basic knowledge in Electronics science.
- 2.Identify electronic components and ICs.
- 3.Design system components that meet the requirement of public safety and offer solutions to the societal and environmental concerns.
- 4.Apply research based knowledge to design and conduct experiments.
- 5.Construct, choose and apply the techniques, resources and modern electronics tools required for Electronics applications.
- 6.Apply the contextual knowledge to assess societal, health, safety and cultural issues and endure the consequent responsibilities relevant to the professional electronics practice.
- 7.Examine the impact of electronics solutions in global and environmental contexts and utilize the knowledge for sustained development.
- 8.Develop consciousness of professional, ethical and social responsibilities as experts in the field of Electronics and Communication.
- 9.Perform effectively as a member/leader in multidisciplinary teams.
- 10Demonstrate resourcefulness for contemporary issues and lifelong learning.

(PSOs)

- 1.Acquire knowledge in fundamental aspects of all branches of Electronics.
- 2.Create inquisitiveness and problem-solving skills.
- 3.Apply the principles of Electronics in solutions to real world problems.
- 4.Get prepared for higher education and career in Electronics.
- 5.Develop skills in the proper handling of apparatus and components.
- 6.Apply Electronics in their day to day life.
- 7.Act as a responsible citizen.
- 8.Select and apply cutting-edge engineering hardware and software tools to solve complex Electronics and Communication Engineering problem.
- 9.Apply the fundamental concepts of electronics and communication science to design a variety of components.

Zoology- (POs)

- 1.Critical Thinking:** Take informed actions after identifying the assumptions that frame our thinking and actions, checking out the degree to which these assumptions are accurate and valid, and looking at our ideas and decisions (intellectual, organizational, and personal) from different perspectives.
- 2.Effective Communication:** Speak, read, write and listen clearly in person and through electronic media in English and in one Indian language, and make meaning of the world by connecting people, ideas, books, media and technology.
- 3.Social Interaction:** Elicit views of others, mediate disagreements and help reach conclusions in group settings.
- 4.Effective Citizenship:** Demonstrate empathetic social concern and equity centred national development, and the ability to act with an informed awareness of issues and participate in civic life through volunteering.

5.Ethics: Recognize different value systems including your own, understand the moral dimensions of your decisions, and accept responsibility for them.

6.Environment and Sustainability: Understand the issues of environmental contexts and sustainable development.

7.Self-directed and Life-long Learning: Acquire the ability to engage in independent and life-long learning in the broadest context socio-technological changes.

(PSOs)

By the end of the programme, Students would be able to-

1.Develop a deeper sense with respect to phylum Protozoa to Echinodermata relation to taxonomy, classification, body organization and general characteristics this strengthens students' capability in basic zoology.

2.Grasp various the Systematic positions from Protozoa to Echinodermata their pathogenicity and its epidemiology.

3.Describe unique characters and recognize life functions of Protozoa, Porifera, Coelenterate, Helminthes, Arthropoda, Annelida, Mollusca and Echinodermata. Improve ability and apply Knowledge of Nonchordates for its execution in Agriculture especially with the phylum Arthropoda.

4.Implement an extensive idea about economic and ecological significance of various non-chordates phylum's in human life.

P.G.Zoology-

POs:

The post graduate course of Zoology will provide theoretical as well as experimental knowledge as per the courses included under the syllabi by which build up creativity in students will lead towards thorough learning and development of ideas of research work and will become ready to face recent challenges. Students can attain the employability skills through the experiences based on their practical knowledge. After completion of MSc in Zoology successfully, the students would be able to.....

1. Demonstrate the significance of the topics of syllabi and evaluate its relevance. Think creatively for its gravity and develop ideas.

2. Interpret scientific ideas and can do its analysis. Create experiments independently and draw inferences by sharing it with others.

3. Derive information from various digital sources. Develop skills for scientific writing and present the data and analyse it scientifically.

4. Articulate scientific ideas lay down a hypothesis; design the pathway to develop research ideas.

5. Acquaint skills in handling the instruments and different techniques through practicals and developing the scientific temperaments for research.

6. Develop competence through healthy atmosphere and quality intercommunication with different groups.

7. Understand environmental and sustainability issues and its sensitivity in relation to regional relevance.

8. Get the facility of different training and internship programs through job-oriented curriculum.

9. Utilize the sources confidently and independently and develop self-sustenance.

PSOs:

Upon completion of the programme successfully, students would be able to

1. Learn to prepare the checklist and inventories through the identification of the fauna in local areas being Melghat Tiger Reserve and Pohra Forest are very nearer to survey.
2. Gain comprehensive knowledge about different animals and develop confidence to handle them during research work.
3. Interpret metabolic pathways, their correlation in concern with prokaryote and eukaryotes.
4. Compare genetic aspects, genetic traits, diseases and their specific causes.
5. Survey and analyse data of the various kinds of diseases in the locality.
6. Understand various strategies and phenomena related to animal reproduction and their development.
7. Get acquainted with conservation strategies and environmental threats to reduce and save energy through Wildlife Week Celebration. 8. Compare the different developmental events during embryogenesis of different animals.

CO1: Molecular Cytogenetic gives the knowledge of biological mechanisms of variations and heredity.

CO2: It also gives an elementary idea about different hereditary diseases and syndromes and their inheritance.

CO3: It trains the students to perform laboratory exercises in cytogenetic.

CO1: Molecular Biology gives the knowledge of biological processes through the investigation of molecular mechanisms.

CO2: It enables to understand the chemical and molecular processes that occur in and between cells.

CO3: It also provides knowledge about the theoretical processes related to drug development.

CO4: Trains the students to perform laboratory exercises in Molecular Biology that is applicable to medicine, forensics and pharmaceutical industry.

CO1: Animal physiology gives the knowledge of biological processes through the investigation of physiological processes.

CO2: It enables to understand the chemical and molecular processes that occur in and between cells. **CO3:** It also provides knowledge about the theoretical processes related to hormonal action.

CO4: Trains the students to perform laboratory exercises in Animal physiology that is applicable to Pathology laboratory, medicine, forensics and pharmaceutical industry.

CO1: Fisheries gives the knowledge of diversity of fishes.

CO2: It helps students to know the commercial importance of different fishes.

CO3: It also provides knowledge about the processes like physiology and ecology of fishes.

CO4: Trains the students to perform laboratory exercises in fisheries that is applicable to agriculture, aquaculture and commercial fisheries.

Physics- (POs)

1.Critical Thinking: Take informed actions after identifying the assumptions that frame our thinking and actions, checking out the degree to which these assumptions are accurate and valid, and looking at our ideas and decisions (intellectual, organizational, and personal) from different perspectives.

1. Effective Communication: Speak, read, write and listen clearly in person and through electronic media in English and in one Indian language, and make meaning of the world by connecting people, ideas, books, media and technology.

2. Social Interaction: Elicit views of others, mediate disagreements and help reach conclusions in group settings.

3. Effective Citizenship: Demonstrate empathetic social concern and equity centred national development, and the ability to act with an informed awareness of issues and participate in civic life through volunteering.

4. Ethics: Recognize different value systems including your own, understand the moral dimensions of your decisions, and accept responsibility for them.

5. Environment and Sustainability: Understand the issues of environmental contexts and sustainable development.

6. Self-directed and Life-long Learning: Acquire the ability to engage in independent and life-long learning in the broadest context socio-technological changes.

(PSOs)

Upon completion of the Programme successfully, students would be able to-

1. Acquire a comprehensive knowledge and sound understanding of fundamentals of Physics.

2. Develop laboratory skills, enabling them to take measurement in a physics laboratory and analyze the measurements to draw valid conclusions.

3. Be prepared to acquire a range of general skills, to solve problems, to evaluate information, to use computers productively, to communicate with society effectively and learn independently.

4. Develop good oral and written scientific communication skill.

P.G. Physics -

Cos-

After completing the course, students must be able to-

CO1 Understand the concept of microscopic and macroscopic states and relationship between thermodynamics and statistics; classify ensembles, relate partition function with thermodynamic quantities.

CO2 Discuss statistics of indistinguishable particles, application of Fermi-Dirac and Bose-Einstein distribution to these particles.

CO3 Interpret classical (Maxwell-Boltzmann) statistics and quantum statistics (Bose and Fermi Dirac) statistics for different systems of particles.

CO4 Discuss phase transition, transport phenomenon and correlate space - time dependent fluctuations.

CO5 Understand the concept of super-fluidity, Landau's theory and non-equilibrium processes.

Cos

After completing the course, students must be able to-

CO1 describe VAM and quantum numbers and understand spectroscopy of the hydrogen and alkali atoms

CO2 discuss of quantum behaviour of atoms in external electric and magnetic fields and recognize the spectroscopy of many electron atomic systems and hyperfine splitting of spectral lines

CO3 discuss Paschen Back effect, Stark effect, apply coupling schemes for two electron atoms and describe Resonance Spectroscopy (ESR and NMR)

CO4 be able to apply knowledge to detailed understanding of vibrational rotational spectroscopy of diatomic molecules, isotope shifts and the detailed concept of Infrared and Raman spectra of Polyatomic molecules.

CO5 discuss the importance of rotational and vibrational energy levels by studying molecular spectroscopy.

COs –

After completing the course, students must be able to-

CO1 discuss charged particle dynamics and radiation from localized time varying electromagnetic sources and the basic mathematical concepts related to electromagnetic vector fields.

CO2 discuss and solve wave equation for electric field and magnetic fields in free space.

CO3 be familiar with concepts of plasma physics and its relation with ordinary electromagnetics.

CO4 discuss the concept and application of wave guide, plasma and confinement and effect of magnetic field on electromagnetic wave.

CO5 Be familiar with the Magneto sonic and Alfvén Waves.

Cos-

After completing the course, students must be able to-

CO1 Discuss about interaction of electromagnetic radiations with matter and ultraviolet-visible spectroscopy and their applications.

CO2 Understand infrared spectroscopy and experimental applications to determine molecular structure.

CO3 Understand Raman Effect, principle of Raman spectroscopy, mechanism of Raman Effect, instrumentation required and Applications.

CO4 Understand the principle and theory of Mossbauer spectroscopy

CO5 Understand modern spectroscopic techniques such as EDS, EDAX, XRF and XPS.

Mathematics-

(POs)

1.Enhance the knowledge of student in all basic sciences.

Identify, formulate and develop solutions to computational challenges.

2.Develop scientific temper and think in a critical manner.

3.Build up progressive and successful career in academics, industry and society.

4.Develop students abilities and aptitudes to apply the mathematical ideas.

(PSOs)

1.Understand major concepts in all disciplines of Mathematics.

2.Formulate and develop Mathematical arguments in a logical manner.

3.Gain good knowledge and understanding in advanced Mathematics.

4.Create an awareness of the impact of Mathematics on the environment, society and development outside the scientific community.

5.Create sensitivity towards environmental concerns and contribute in the development of nation.

Master of Commerce (M.Com)

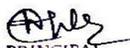
(POs)

- 1.To acquire a job as an Economist, Market Research Analyst, a banker, management consultant, stockbroker/trader, Actuary, Financial analyst, Financial advisors or Advisor to Tax Law Court etc.
2. To acquire the process of managerial economics, demand analysis, production theory, price determination and pricing practices, etc.
3. To acquire proficiency in the accounting concepts as well as tools and techniques used for taking managerial decisions.
4. To master the knowledge of ratio analysis, cash flow and budgetary control.
5. To achieve decision making abilities in the situation of uncertainty in dynamic business environment.

(Cos)

- 1.Students will understand seven phases of marketing of service in depth.
- 2.Student will understand strategic issues peculiar of service marketing.
- 3.Investments are assets held by an enterprise for earning income
- 4.Final Accounts gives an idea about the profitability and financial posting of business to its management, owners and other interested parties.
- 5.Application of CIBIL Score in qualifying the proposal of advances .
- 6.Impact of Monetary Policy on various industries.




PRINCIPAL
Mahatma Fule Arts, Com. & Sitaromji
Chaudhari Sci. Mahavidyalaya, Waru