मराठा विद्या प्रसारक समाजाचे,
कर्मवीर पुंजाबाबा गोवर्धने कला, वाणिज्य व विज्ञान महाविद्यालय, इगतपुरी
ता. इगतपुरी, जि. नाशिक – ४२२४०३
Affiliated to Savitribai Phule Pune University, Pune
NAAC reaccredited 'B' Grade (CGPA: 2.52) ID NO. PU/NS/ASC/023/1982

महत्त्वाची सूचना (Induction Programme)

वरिष्ठ महाविद्यालयातील सर्व विभागप्रमुख तसेच संबंधित प्राध्यापकांना सूचित करण्यात येते की मा. प्राचार्य डॉ. किरण रकिबे यांच्या मार्गदर्शनानुसार शुक्रवार, दि. २२ ते २४ जुलै २०२४ रोजी सकाळी ठीक १० वाजता प्रथम वर्ष कला शाखेत प्रवेश घेतलेल्या विद्यार्थ्यांसाठी Induction Programme आयोजित करण्यात येत असून आपणास विद्यार्थ्यांच्या मार्गदर्शनासाठी उपस्थित राहावयाचे आहे. वाणिज्य, विज्ञान तसेच संगणकशास्त्र विभागाच्या विभागप्रमुखांनी नवीन अभ्यासक्रमानुसार कला शाखेकरीता Open Elective हा विषय शिकवणाऱ्या आपल्या विभागातील प्राध्यापकांना त्या विषयाशी संबंधित मार्गदर्शनासाठी उपस्थित राहण्याबाबत सूचित करावयाचे आहे. सदर मार्गदर्शन कार्यक्रमाचा तपशील खालीलप्रमाणे :

दिनांक २२ जुलै २०२४			
अ. क्र.	विभाग / समिती / विषय	मार्गदर्शकाचे नाव	कालावधी
०१.	राष्ट्रीय छात्र सेना (N. C. C.)	श्री. परदेशी एस. एस.	१० ते ११
०२.	राष्ट्रीय सेवा योजना (N. S. S.)	श्री. चौरसिया के. के.	११ ते १२
०३.	क्रीडा विभाग	श्री. वसावे एच. आर.	१२ ते १
०४.	परीक्षा विभाग	डॉ. पाटील बी. सी.	२ ते ३
०५.	शिष्यवृत्ती विभाग	कनिष्ठ लिपिक श्री. आरोटे	३ ते ४
Open Elective विषय			
	दिनांक २३ जुलै २०२४ - वाणिज्य		
०६	Financial Literacy	श्री. जी. एस. लायरे	१० ते ११
०७	Stock Market Operations	श्री. एम. आर. धेबडे	११ ते १२
०८	Business Entrepreneurship	श्रीमती जे. आर. भोर	१२ ते १
०९	Business Mathematics	श्री. ए. वाय. सोनवणे	२ ते ३
	दिनांक २४ जुलै २०२४ - विज्ञान		
१०	Mathematics	श्री. जी. टी. सानप	१० ते ११
११	Pet Breeding & Management	श्री. के. के. चौरसिया	११ ते १२
१२	Plant & Human Welfare	श्रीमती आर. एस. जाधव	१२ ते १
१३	Physics of Daily Life Kitchen	श्रीमती. एम. व्ही. मानकर	२ ते ३
१४	Chemistry in Day to Day Life	श्रीमती. ए. बी. धोंगडे	३ ते ४
१५	Basics of Computer	श्री. चेतन चौधरी	४ ते ५

सूत्रसंचालन : प्रा. डॉ. व्ही. बी. राठोड आभारप्रदर्शन : श्री. राहुल बहोत

प्रा. डॉ. व्ही. बी. राठोड

डॉ. किरण रकिबे

मराठा विद्या प्रसारक समाजाचे,
कर्मवीर पुंजाबाबा गोवर्धने कला, वाणिज्य व विज्ञान महाविद्यालय, इगतपुरी
ता. इगतपुरी, जि. नाशिक – ४२२४०३
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मंगळवार, दि. ०९/०७/२०२४

BASKETS OF OPEN ELECTIVE SUBJECTS

Sr. No.	Faculty		Course Name	Credits
1.	Arts	01.	व्यक्तिमत्त्व विकास आणि भाषा (मराठी)	02
		02.	Commercial Geography (भूगोल)	02
		03.	Indian Economics Policy(अर्थशास्त्र)	02
		04.	Mass Communication(इंग्रजी)	02
	Student should select any one subject			
2.	Commerce	01.	Financial Literacy	02
		02.	Business Mathematics	02
		03.	Basics of Stock Market Operation	02
		04.	Business Entrepreneurship	02
	Student should select any one subject			
3.	Science	01.	Kitchen And Daily Life Chemistry (Chemistry)	02
		02.	Pet Breeding & Management Theory (Zoology)	02
		03.	Basic Mathematics (Mathematics)	02
		04.	Plant & Human Welfare (Botany)	02
		05.	Physics In Daily Life (Physics)	02
	Student should select any one subject			
4.	Computer Science	01.	Introduction to Computers & Basics of Internet	02
	Student should select any one subject			

टीप :

1. प्रथम वर्ष कला (F. Y. B. A.) शाखेच्या विद्यार्थ्याने वाणिज्य, विज्ञान किंवा संगणकशास्त्र शाखेतील बास्केटमधून कोणताही एक विषय निवडावा.
2. प्रथम वर्ष वाणिज्य (F. Y. B. Com.) शाखेच्या विद्यार्थ्याने कला, विज्ञान किंवा संगणकशास्त्र शाखेतील बास्केटमधून कोणताही एक विषय निवडावा.
3. प्रथम वर्ष विज्ञान (F. Y. B. Sc.)शाखेच्या विद्यार्थ्याने कला, वाणिज्य किंवा संगणकशास्त्र शाखेतील बास्केटमधून कोणताही एक विषय निवडावा.
4. प्रथम वर्ष संगणकशास्त्र (F Y BSc. C. S.) शाखेच्या विद्यार्थ्याने कला, वाणिज्य किंवा विज्ञान शाखेतील बास्केटमधून कोणताही एक विषय निवडावा.

डॉ. किरण रकिबे
प्राचार्य

Maratha Vidya Prasarak Samaj's Nashik

K.P.G Arts, Commerce & Science College, Igatpuri.

Report of Induction Programme 2024-25

Department	:	**All Faculties of the College**
Programme	:	**Induction Programme 2024-25**
Location	:	**K. P. C. Arts, Commerce & Science College, Igatpuri**
Organizer	:	**All Faculties of the College**
Date	:	**22nd to 24th Jul. 2024**
Beneficiary	:	**327**

Class	Male	Female	Total
F. Y. B. A.	50	16	66
F. Y. B. Com.	74	51	125
F. Y. B. Sc.	36	58	94
F. Y. B. Sc. (C. S.)	20	22	42
Total	180	147	327

Mr. Sonawane A. Y.
Head, Dept. of Commerce

Mr. Pardeshi S. S.
IQAC Coordinator

Dr. Kiran Rakibe
Principal

Maratha Vidya Prasarak Samaj, Nashik

Karmaveer Punjababa Govardhane Arts, Commerce and Science College, Igatpuri.

Report of Induction Program 2024-25

All the Departments of the college have organized an Induction Program on 22nd to 24th July 2024 at 10.00 am to 4 pm at the Seminar Hall of the college as suggested by Internal Quality Assurance Cell of the college. The objective of the program was to give information about the modified syllabus, subjects and their credit system to the newly admitted students of the Commerce faculty as per the National Education Policy 2020.

The inauguration of this three days Induction Program was done by Dr. Kiran Rakibe Sir Principal of the College. In his speech he told the importance of changed structure of the Education Policy.

Session : 1 – Date 22nd July 2024 Time : 10 am, Expert Speaker - Mr. Pardeshi S. S. Topic: National Cadet Corp.

Mr. Pardeshi gave the detailed information of the National Cadet Corp. Which is available for both male and female students. He said the certificates from this program are very much beneficial for the selection in defence sector. This Course has the capacity of only 50 students.

Session : 2 – Date 22nd July 2024 Time : 11 am, Expert Speaker - Mr. Chourasiya K. K. Topic: National Service Scheme.

Mr. Chourasiya in his speech said that NSS is very unique opportunity for those students who wants to do some social service. 125 students can be admitted in this couse each year. A student has to undergo 2 years of NSS with one special winter camp to get the certificate.

Session : 3 – Date 22nd July 2024 Time : 12 noon, Expert Speaker - Mr. Vasave H. R. Topic: Sports Department.

Mr. Vasave displayed the list of facilities available in the Sports Department which includes biggest indoor stadium in the region, separate and wel equipped modern gym for boys and girls with trainer. He also read out the list of achievers till date in various sports activities held at university and state level.

Session : 4 – Date 22nd July 2024 Time : 2 pm, Expert Speaker – Dr. Patil B. C. Topic: Introduction to Examination Department.

Dr. Patil is College Examination Office who gave details of the examination structure as per the National Education Policy 2020. He also gave the demonstration of registration on University website and filling up the online application. He gave valuable instructions to the students about the examination procedures.

Session : 5 – Date 22nd July 2024 Time : 3 pm, Expert Speaker - Mr. Aarote Topic: Scholarships.

Mr. Aarote is in charge of the processing task of all scholarships available to students from various government and non government organisations. He instructed the students to carefully and priority wise to get the important documents updated well before start of actual online application of various scolarships.

Session : 6 – Date: 23rd July 2024 Time : 10 am, Expert Speaker - Mr. Layare G. S. Topic: Financial Literacy.

On the second day at the 6th Session of the Induction Program, we started with Open Elective Courses. In that Mr. Gopal Layare explained the first Open Elective option available to the students. He said Financial Literacy subject will be beneficial to get the updated knowledge of financial transaction system.

Session : 7 – Date: 23rd July 2024 Time : 11 am, Expert Speaker - Mr. Dhebade M. R. Topic: Stock Market Operations.

Mr. Dhebade M. R. Who is a faculty in the Department of Commerce will be teaching this OE subject. He said the investment sector is developing at the fast rate and stock market is at the center of all investment instruments. A modern investor must be literate enough to be able to take correct investment decision.

Session : 8 – Date: 23rd July 2024 Time : 12 noon, Expert Speaker - Mrs. Bhor J. R. Topic: Business Entrepreneurship.

In this 8th Session of the induction program Mrs. Jyoti Bhor madam emphasised on the need of the time to start an business enterprise. A business entrepreneur has to learn and study so many topics and concept so as to be ready for the better management of any kind of business.

Session : 9 – Date: 23rd July 2024 Time : 2 pm, Expert Speaker - Mr. Sonawane A. Y.. Topic: Business Mathematics.

Mr. Sonawane A. Y. Has given the information regarding the need of learning mathematical skill for the students who will be preparing for competitive exams. He further stated that this subject of business mathematics deals with the basic mathematical formulas and methods required for any business.

Session : 10 – Date: 24th July 2024 Time : 10 am, Expert Speaker - Mr. Sanap G. T.. Topic: Mathematics.

Mr. Sanap who is the Head of the Department of Mathematics emphasised on the need of studying mathematics for computer science faculty students and students from Arts faculty as both of then need it in either competitive exam or in computer programming. He further gave few practical examples from which it is more clear that basic maathematics is also a very important subject for higher studies.

Session : 11 – Date: 24th July 2024 Time : 11 am, Expert Speaker - Mr. Chourasiya K. K. Topic: Pet Breeding and Management.

For the agriculture area surrounding the college where many allied activities are carried out like milk and goat farming etc. this is very useful to learn the technique of Pet breeding. Mr. Chourasiya explained the importance of his topic in such a manner that will creat employment at the easiest way.

Session : 12 – Date: 24th July 2024 Time : 12 noon, Expert Speaker - Ms. Jadhav R. S. Topic: Plant and Human Welfare.

Miss. Jadhav Madam explained the types of plants that can be grown at the backyard or in the farm which has some medicinal value. She further explain the importance of this subject in the pharmaceutical industry. Students were eager to know more about this subject and asked few questions too.

Session : 13 – Date: 24th July 2024 Time : 2 pm, Expert Speaker - Mrs. Mankar M. V. Topic: Physics of daily life kitchen.

Mrs. Mankar who is a faculty in the department of Physics, gave very interesting examples of Physics in our daily life. This topic will help the student to develop a scientific approach toward our daily routine in the kitchen. Especially female students were very keen to know more about this subject.

Session : 14 – Date: 24th July 2024 Time : 3 pm, Expert Speaker - Mrs. Dhongade A. B. - Topic: Chemistry in day to day life.

Mrs. Dhongade madam is a faculty in the Department of Chemistry, she explained the students that Chemistry has a very vast scope. Even in our day to day life, if we study chemistry then we can make better use of our resources.

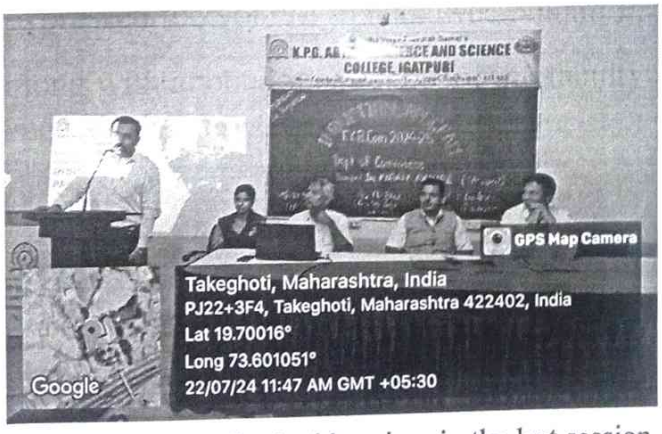
Session : 15 – Date: 24th July 2024 Time : 4 pm, Expert Speaker - Mr. Chaudhari C. D.. Topic: Basics of Computer.

This was the last session of the three days Induction Program. The faculty from the Computer Department Mr. Chetan Chaudhari enlighten the students with the scope and career opportunities available for a person with computer literacy. He further stated that computers skills are the unavoidable feature in one's resume.

Prof. Dr. Rathod V. B. did the anchoring of the program, while Mr. Bahot R. J. expressed the vote of thanks. Mr. Nikam P. P. and Mrs. Desai S. M. and few other teachers along with about 250 students of the faculty attended the program.

Mr. Vasave H. R. Delivering ins speech

Principal Dr. Kiran Rakibe Sir guiding students



Mr. Chetan Chaudhari addressing in the last session.

The beneficiaries of the Programme & staff.

Mr. Sonawane A. Y.
Head, Dept. Of Commerce

Mr. Pardeshi S. S.
IQAC Coordinator

Dr. Kiran Rakibe.
Principal

Maratha Vidya Prasarak Samaj's

K.P.G. Arts, Commerce and Science College, Igatpuri

Affiliated to Savitribai Phule Pune University, Pune

NAAC reaccredited 'B' Grade (CGPA: 2.52) ID NO. PU/NS/ASC/023/1994

Date - 22-07-2024

F.Y.B.A. INDUCTION PROGRAM 2024-25

Students Attendance

Sr.No.	Name of the Student	Contact No.	Signature
1.	Roshan Bhausaheb Khatale	9518913489	R.Khatale
2.	Krushna Ananda Pardhi	9322324809	[illegible]
3.	Rutun Rajaram Sure	9373082168	Rutun
4.	Kalu Damu Hambir	9529248379	K.Hambir
5.	Uttam Jayaram Gaikane	8767610924	Gaikane
6.	AJay Aba Jadhav	7517650619	AJay Jadhav
7.	Prasad Laxman Bhawari	7498466052	P.Bhawari
8.	Lucky Santosh Pandey	9511643826	Lucky
9.	kishor kisan katware	9373916572	K.K.katware
10.	Harshal pandurang Takade	8975108886	H.P Takade
11.	Lakhan Ankush Joshi	8459232972	LAJoshi
12.	Darshan machhindra Joshi	9022837765	D.m.Joshi
13.	Samadhan kisan Lete	9309794744	Slete
14.	~~Any~~ Vaibhav Shivnath Gangad	7030228777	VSgangad
15.	Aniket Manaji Gangad	7499726497	Aniket
16.	Digvijay Kundlik Mate	9370320972	D.K.Mate
17.	Pratik Bhausaheb mate	7776967569	[illegible]
18.	Abhay Bhau Khodake	8766583502	A.B Khodake
19.	Yuvraj Pandit Rere	9373054931	Y.P.Rere
20.	yuvraj Pilaji Bhagat	8788773762	[illegible]
21.	Ramesh Pilaji GiRe	7666359287	R.P.GiRe
22.	Uttam kalu Rere	8329770245	U.K.Rere
23.	Roshan Sawaliram Bhagat	7888172366	[illegible]
24.	Vijay Yashwant Katore	9699341203	Vkatore
25.	Trambak Sandip Aghan	9518306650	T.S. Aghan

Mr. A. Y. Sonawane	Prof. Dr. V. B. Rathod	Mr. S. S. Pardeshi	Dr. Kiran Rakibe
Program Coordinator	Program Coordinator – Faculty of Arts	Coordinator – IQAC	PRINCIPAL

Coordinator IQAC K.P.G.Arts Com and Sci.College

PRINCIPAL MARATHA VIDYA PRASARAK SAMAJ'S KARMAVEER PUNJABABA GOVERDHANE

Maratha Vidya Prasarak Samaj's

K.P.G. Arts, Commerce and Science College, Igatpuri

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Date 22/07/2024

F.Y.B.A. INDUCTION PROGRAM 2024–25

Students Attendance

Sr.No.	Name of the Student	Contact No.	Signature
26.	Machhindra Balu Jarde	9359124288	[signature]
27.	Jitendhra Jagan Avali	9327896944	JAvali
28.	Pavan Lahunu Shid	9309768151	P.L.Shid
29.	Yogesh Jagan Avali	8149768120	Y.J.Avali
30.	Kailas Ramdas parthi	9356454291	[signature]
31.	mate yuvraj sanjay	9529705819	Ymate
32.	Saurabh Devaram made	9511639369	[signature]
33.	Anil kailas mahale	7498592020	Anil
34.	Bathamesh Ambadas Gavand	9021695081	Gavand
35.	Roshan Padurang arshende	9270100170	R.Arshende
36.	Shubham Trayambak Bhusare	8830936454	[signature]
37.	Umesh Sanjay Chandramore	7083142175	U.Chandramore
38.	Pranit Raju Dabhade	9370056775	[signature]
39.	Ganesh Dnyandev lahane	9273777606	G.D.lahane
40.	Krushna Tukaram Bhagat	9022867092	Bhagat
41.	Rushikesh Dipak Pardeshi	8767442431	Rushikesh
42.	Vinayak Bholenath Bhor	9356210170	V.B.Bhor
43.	chetan Janak Lahane	9370404457	C.J.Lahane
44.	Siddhesh Santosh Raykar	9158584101	Raykar
45.	Sushant Jagdish ubale	8767606189	S.J.Ubale
46.	Shubham Namdev Lahane	8788621162	S.N.Lahane
47.	Gurunath Rungnath Bhagade	9356839313	[signature]
48.	Mayur samnath Bhagade	9226041902	MAYUR
49.	Nikhil Ganesh mali	8237953933	Nmali
50.	Prathamesh chandrakant Adole	9579820392	Adole

Mr. A. Y. Sonawane	Prof. Dr. V. B. Rathod	Mr. S. S. Pardeshi	Dr. Kiran Rakibe
Program Coordinator	Program Coordinator – Faculty of Arts	Coordinator – IQAC	Principal

Co-ordinator IQAC K.P.G.Arts Com and Sci.College Igatpuri, Dist. Nashik

PRINCIPAL MARATHA VIDYA PRASARAK SAMAJ'S KARMAVEER PUNJABABA GOVERDHANE ARTS, COMMERCE AND SCIENCE COLLEGE,

Maratha Vidya Prasarak Samaj's

K.P.G. Arts, Commerce and Science College, Igatpuri

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Date - 22-07-2024

F.Y.B.A. INDUCTION PROGRAM 2024–25

Students Attendance

Sr.No.	Name of the Student	Contact No.	Signature
51.	Jayesh sham Jadhav	8237201565	J.S. Jadhav
52.	Dhanashri Bhagaji kaute	9604052670	D.B. kaute
53.	~~R.S. sa~~ Pallavi sidder sane		
54.	sarng Ramdas Chandramore	7218718304	SRmore
55.	Abhay Dilip Gaykar	9371767501	[illegible]
56.	Rohan Vishnu Warghade	9309516489	R.V. Warghade
57.	mohan BAndu Bhagat	9022345472	MBhagat
58.	Jivan santosh manvade	7498246453	[illegible]
59.	Tushar Ashok Bhagat	9322714839	T.A. Bhagat
60.	yode Astik Dattu	7057557387	[illegible]
61.			
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75.			

Mr. A. Y. Sonawane	Prof. Dr. V. B. Rathod	Mr. S. S. Pardeshi	Dr. Kiran Rakibe
Program Coordinator	Program Coordinator – Faculty of Arts	Coordinator – IQAC	Principal

Co-ordinator IQAC K.P.G.Arts Com and Sci. Igatpuri, Dist. Nashik

PRINCIPAL MARATHA VIDYA PRASARAK SAMAJ'S KARMAVEER PUNJABABA GOVERDHANE ARTS COMMERCE AND SCIENCE COLLEGE

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F. Y. B. Com. INDUCTION PROGRAM 2024–25

Date: 22/07/2024

Students Attendance

Sr.No.	Name of the Student	Contact No.	Signature
1.	Swarup Kishor Bhatate	7499109033	Swarup
2.	Vidya Kalu Bhatate	7499209604	VBhatate
3.	Haroshada Navnath Bhor	9579623094	HBhor
4.	Sayali Nivrutti Bhor	7498175380	SNBhor
5.	Sanali Tanaji Bhor	8605446930	SBhor
6.	Kalyani Dnyaneshwar Bhosale	8459740529	KDBhosale
7.	Pratiksha Ankush Borade	8668751829	PBorade
8.	Shubham Balu Borade	8010239338	S.B.Borade
9.	Vaishnav Somnath Borade	7972401910	VSBorade
10.	Nilesh Somnathchandramore	7517286810	NSchandramore
11.	Sahil Kisan Chandramore	9657968316	SKmore
12.	Aditay Sampat chaudhari	7768026599	A.S.chaudhari
13.	Aniket Keshav chaudhari	9404856812	A.Kchaudhari
14.	Mayur Dnyaneshwar chavan	9307228810	Mchavan
15.	Mayuri Gopinath chavan	7507784155	MGchavan
16.	Priya Laxman chavan	7820936859	Pchavan
17.	Rahul Ganpat chavan	9529424452	Rchavan
18.	Sakshi Shantaram Chavan	9850654110	S.S.Chavan
19.	Shreyash Bhagwan chavan	9309947405	SBC
20.	Bhagavan Krushna chavan	8208236570	BKC
21.	Prem Nivrutti Dahale	9699247046	PNDahale
22.	Heena Balu Dalbhayat.	9529683179	HBDalbhayat
23.	Nikita Dattatray Dalbhyat.	9881330400	NDDalbhyat
24.	Shubham wala Dalbhagat	8767239778	S.W.Dalbhagat
25.	Akash Ravidas Dandne	8329040577	A.R.Dandne

Mr. A. Y. Sonawane Program Coordinator	Mr. M. R. Dhebade Program Coordinator – Faculty of Commerce	Mr. S. S. Pardeshi Coordinator – IQAC	Dr. Kiran Rakibe Principal

Maratha Vidya Prasarak Samaj's

K. P. G. Arts, Commerce and Science College, Igatpuri

Affiliated to Savitribai Phule Pune University, Pune

NAAC reaccredited 'B' Grade (CGPA: 2.52) ID NO. PU/NS/ASC/023/1982

F. Y. B. Com. INDUCTION PROGRAM 2024–25

Date: 22/07/2024

Students Attendance

Sr.No.	Name of the Student	Contact No.	Signature
1.	Kanav Rajendra Mundani	7666554031	K.R.Mundani
2.	Diksha Gangaram Bhangare	9579192905	D.G.Bhangare
3.	Bhatate Harshali Sunil	9028440660	Bhatate
4.	Donde mansi Dilip	9321619558	Donde
5.	Donde Roshani uttam	8830874839	Donde
6.	Dubhashe Nayna Murlidhar	9765230406	Dubhashe
7.	Dubhashe Omkar Dinkar	8668525423	O.D.Dubhashe
8.	Rohan Dipak Gangurde	7841929633	Rohan
9.	Gaurav gopal gabit	8010304046	Ggabit
10.	Harshada Gorakh Gavit	8459575077	Gavit
11.	Gavit ketan shivnath	8010788287	Ketan
12.	Gavit Pravin Bhagirth	8087696871	P.B.Gavit
13.	Gatkhal Shraddha Balu	9209414282	Gatkhal
14.	Gatkhane Rohan vishwanath	9172374420	
15.	Gavhane Vaishali Kailas	7057758600	Vgavhane
16.	Gavhane Vaishali Ramdas	9921468481	Vgavhane
17.	Ghare Gayatri Eknath	9881863984	Ghare
18.	Ghare Nisha madan	7387661925	Nmghare
19.	Ghare Tai prakash	7720045722	Ghare
20.	Ghare yash Ramdas	7276320018	yashRG
21.	Vaishnavi Namdev Ghayvad	7821986506	Ghayvad
22.	Roshan Harishchandra Ghute	9322998037	Ghute
23.	Vighnesh Pandurang Goikar	9209393804	Sanj
24.	Akshay Ankush Gosavi	9511639050	Agosavi
25.	Diksha. Rangnath Govardhane	8766798946	Govardhane

Mr. A. Y. Sonawane
Program Coordinator

Mr. M. R. Dhebade
Program Coordinator – Faculty of Commerce

Mr. S. S. Pardeshi
Coordinator – IQAC

Dr. Kiran Rakibe
Principal

Maratha Vidya Prasarak Samaj's

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Date: 22/07/2024

F. Y. B. Com. INDUCTION PROGRAM 2024–25

Students Attendance

Sr.No.	Name of the Student	Contact No.	Signature
1.	Gulve Sayali Navnath	7666720248	Gulve
2.	Jadhav Ashwini Gorakshnath	7588625547	A. G. Jadhav.
3.	Jadhav. Sakshi Sampat	7507615692.	S.S. Jadhav.
4.	Jadhav Sahika Sunil	9822595625	Jadhav
5.	Jadhav Vikas Ashok	9322464479	Jadhav
6.	Jagtap Prathamesh Rahul	7028983093	Jagtap
7.	Jagtap Sanjana Sanjay	9881580869	Jagtap.
8.	Jagtap Vishal Gulab	7517238096	Jagtap.
9.	Yash Manik Joshi	9359412640	Joshi
10.	Manik Nandu Kadu	9021711838	M. N. Kadu
11.	Pavan Yuvaraj Kadu	9899872461	PKadu
12.	Kajale Ashwini Sudhakar	9356352259	Kajale
13.	Abhishek Ramesh Kale	9307805283	Kale
14.	Apeksha Kailas Kale	7558313191	AKale
15.	Nayan Uttam Kale	9529772272	Kale
16.	Prathmesh Tanaji Kale.	9907664976	Kale.
17.	Priyanka Ravindra Kale	8262014152	Kale.
18.	Ravina Dilip Kale	9225198464	RKale
19.	Sakshi Suresh Kale.	8421112682	Kale
20.	Kankat Pushpa Vilas	9403676948	PKankat
21.	Shubham Bhikaji Kardale	7410781254	Kardale
22.	Pratiksha Ashok Kshirsagar	9527643240	Pratiksha
23.	Manoj Bhaskar Shakar	8261942691	Shakar
24.	Aarti machinder. khatale	8010103065	Khatale.
25.	Nayan Navnath khatale	9022038791	Khatale

Mr. A. Y. Sonawane
Program Coordinator

Mr. M. R. Dhebade
Program Coordinator – Faculty of Commerce

Mr. S. S. Pardeshi
Coordinator – IQAC

Dr. Kiran Rakibe
Principal

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F. Y. B. Com. INDUCTION PROGRAM 2024–25

Students Attendance

Sr.No.	Name of the Student	Contact No.	Signature
1.	Bhagyashri Madhukar Lahane	8796349014	B.M.Lahane
2.	Mohini Gajanan Lahane	9699573472	
3.	Pavan Bhausath lahane	9325159834	P. B. lahane
4.	Vaishnavi Santosh Lahane	9322106938	
5.	Yashoda Ganpat Lahane	8446898962	
6.	Langade Rohit Machindar	8830300618	
7.	Langade Vaishnavi Hanuman	8080659485	
8.	Lavhare sejan balu	7498556005	
9.	Madge Priyanka Suresh	8766916541	
10.	Madke Utkarsh Datta	8108077180	
11.	Pallavi Dnyaneshwar Maile	9225113267	P.D.Maile
12.	Kunal Shankar Mali	8317228637	
13.	Pavan Namdev Mali	9130768902	
14.	Shrinath Sanjay Mali	9146359388.	
15.	Tejas kishor manohar	8767613171	
16.	Rupesh Balkrusha Marwade	9373609545	
17.	Jivan Bhamudas Marade.	8468819985	
18.	Sapana Devram Musale	7498321929	
19.	Pradip gurunath nathe	9322030740	
20.	Pradip Bahiru Padmere	9607455329	
21.	Gauri Bhimrao Palade.	7972501254	
22.	Hindvi Prahladsing Pardeshi	9552166328	H.P.Pardeshi
23.	Sumit Bhavsing Pardeshi	8767604097	S.B.Pardeshi
24.	Darshana Dattu Patil	7498515013	D.Patil.
25.	Pragati Ashok Patil	9881886730	

Mr. A. Y. Sonawane
Program Coordinator

Mr. M. R. Dhebade
Program Coordinator – Faculty of Commerce

Mr. S. S. Pardeshi
Coordinator – IQAC

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Principal

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F. Y. B. Com. INDUCTION PROGRAM 2024–25

Date 22/07/2024

Students Attendance

Sr.No.	Name of the Student	Contact No.	Signature
1.	Akshada santosh Adole	fybcom	
2.	Adole Ganesh Santosh	F.Y.B.Com	GSAdole
3.	Adole Kavita Laxman	F Y B .com	Kavita
4.	Adole Laxmi Nandu	F.Y.B.com	
5.	Adole Monika Bhaudas	8767083335	
6.	Adole Mukta Sadashiv	8219430322	
7.	Adole omkar Ramchandra	7620985800	OR Adole
8.	Adole Poonam Subhash	7775870372	
9.	Adole Rohan Nivrutti	9021482488	
10.	Adole Sakshi Shivnath	8999266671	
11.	Adole Sanket Babu	9028924662	
12.	Aghan Sachin Shivram	7620167038	
13.	Darshan Bapu Amle	7620653064	D.B.Amle.
14.	Karthik Dattatray Ambawane.	9284553674	
15.	Ambekar megha Pandharinath	9146932479	M.P.Ambekar.
16.	Aarshende Kirti chandrakant	8329883169	
17.	Awati Rushikesh Abaji	8262957475	
18.	Bagul Gautami Sahebrao	8668820265	
19.	Beiragi Dasthan Ravindra	8483060759	D.R.Beiragi
20.	Khushbu Narayan Barde	9604090996	
21.	Gauri prabhakar Belekar	7719932297	
22.	Diksha Gurunath Bhagade	7822910858	
23.	Darshan Ganesh Bhagat	9359758721	D.G.Bhagat
24.	Manoj Dnyaneshwar Bhagat	7823828824	
25.	Mayuri Hiraman Bhagat	9699267278	M.H.Bhagat

Mr. A. Y. Sonawane
Program Coordinator

Mr. M. R. Dhebade
Program Coordinator – Faculty of Commerce

Mr. S. S. Pardeshi
Coordinator – IQAC

Dr. Kiran Rakibe
Principal

Karm. Punjababa Govardhane Arts, Commerce and Science College,
Maratha Vidya Prasarak Samaj's
Igatpuri, Tal-Igatpuri, Dist- Nashik

Induction Program 2024-25
Attendance

Date:- 22/07/2024

Sr. No.	Name of the Student	Mobile No.	Signature
1	Nirmal Digambar Shardd	7776866087	
2)	Kokund Vikram Santosh	8999472433	V.S.Kokate
3)	Sonule Sumit Ashok	7887970417	Sonule
4)	Bhagat Aniket Ashok	7796840657	Aniket
5]	HArshad Bhausahed mate	7620599478	H. B. mate
6]	Shaikh Saddam Chand	7350388912	Shaikh
7)	Afque Ansar Khan	8087933325	
8]	Ajlesh Jalindar Idhane	9049539629	
9]	Zeeshan Pansare	7756004296	Pansare
10	Sandesh Gaware	9370235442	
11	Parth Durgude	9309325701	Durgude
12	Prathamesh Jundare	7276330766	P.S. Jundare.
13	Umesh DNYANESH KADU	8055384009	U. D. KADU
14]	Harshvardhan Sapkale	8805452865	
15]	omkar Bahire khatale	8767656355	Omkar Khatale
16]	Sahil. Machindra Kokare	9834038371	Sm Koka
17]	krish Sachin pandit	8668872461	Krish
18	Navale Tejas Bhanudas	8999886076	
19]	Mayur Dnyaneshwar Jundre	9322695079	
20]	Omkar Kailas Lahane	8010095594	
21]	Pradeep Trimbak Tokade	9673158720	Pradeep
22	Rohit Dnyaneshwar Gorhe	9604465092	Gorhe.
23)	Pratik Suresh Govardhane	9881589507	Pratik
24)	Dhananjay. S. Khanke	8087158312	Khanke.

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Induction Program

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IQAC

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Punjababa Govardhane Arts, Commerce and Science College,
Igatpuri, Tal-Igatpuri, Dist- Nashik

Induction Program 2024-25
Attendance

F.Y. BSc

Date:-22/07/2024

Sr. No.	Name of the Student	Mobile No.	Signature
1]	Vaishnavi Suryavanshi	9028263881	P.Suryavanshi
2]	Sanskruti Gawande (struck through)	9011968616 (struck through)	
2]	Sanjana Bhosale	9561290949	S.Bhosale
3]	Harshada Thoke	9373715948	H.Thoke
4]	Nikita Dashrath Gaikwad	9209038688	[signature]
5]	Pushpa Dahale	9529595346	[signature]
6]	Trupti kutke	7498260152	T.kutke
7]	Sakshi Rajendra Jadhav.	8432365707	S.R. Jadhav.
8]	Ashwini Banshi Jadhav.	9309102733	A.B Jadhav
9]	Bendkule savita Govind	8459918416	S.G. Bendkule
10]	Khade Anuradha Laxman	9307520479	A.L.khade
11]	Afsha Afroz Khan	9356731682	[signature]
12]	Seema Kisan Lavhare	7218851064	[signature]
13]	Shaikh Asma Firoz	9271786715	Shaikh asma
14]	Pradnya Vijay Pawar	7028936140	[signature]
15]	Pallavi Pandurang kokane	9850179672	Kokane
16]	Gauri Dhananjay Govardhane	9923250849	G.Govardhane
17]	PooJa Devram Gavhane	9270717994	P. D. Gavhane
18]	Vishakha Nitin Andade	7276575074	V.N.Andade
19]	Sakshi kashinath Dawkhar	8010828882	S.Dawkhar
20]	Prathamesh Liladhar Shirsath	9284360186	P.Shirsath
21]	Pradip Chandar Hambire	7620243788	Pradip
22]	Ganesh Kisan Yerewere	8161812969	[signature]

Coordinator
Induction Program

Coordinator
IQAC

Principal

PRINCIPAL
M. V. P. Samaj's
K. P. G. Arts, Comm. and Sci. College

...aratha Vidya Prasarak Samaj's
...Punjababa Govardhane Arts, Commerce and Science College,
Igatpuri, Tal-Igatpuri, Dist- Nashik

Induction Program 2024-25
Attendance

Date: 22/07/2024

Sr. No.	Name of the Student	Mobile No.	Signature
1.	Nidhi Kumari.	7258067022.	
2.	Diksha Dnyaneshwar Borade	9762719300	
3.	Komal santosh Aghan	8788894945	
4.	puja pandhirnath Benelkeli	7447714506.	P.P. Benelkeli.
5.	Arisha Shaikh Aapakh	9325987251	
6.	Neha Avinash Barve	7410048124	
7.	Mrudula vijay uttekar	7822081337	
8.	Farin Mubin meman	7709978570	F.M. meman
9.	mahek Dayaram Jeahe	8459900511	
10	Rasika prakash Bonde	9021896064	
11	Pallavi Bhagwan Gite.	9890381099	
12.	AFSHA AFROZ KHAN.	9356731682	
13	Seema Kisan Lavhare	7218857067	
14	Telam Payal Sitaram	9607354495	
15]	chavan Nilam chavansing	9022525121	N.S Pardeshi
16]	Khatale Harshada Nandu	8767300486	Khatale
17]	Jadhav Sanghamitra Maruti	8007373322	
18]	Chavan Jyoti Govind	9763276368	
19)	Andade Vishakha Nitin.	7276575074	
20)	Kulsum obedullah shaikh	8793982512	
21)	Nikute Dashrath Gaukan	9209038688	
22]	Sanskruti sandeep Gawande	9011968616	
23]	Harshada Ravindra Bhor	9260184608	
24)	Akshada Ramdas Ghare	7757051497	

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M. V. P. Samaj's
K. P. G. Arts, Comm. and Sci. College
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Maratha Vidya Prasarak Samaj's
Karm. Punjababa Govardhane Arts, Commerce and Science College,
Igatpuri, Tal-Igatpuri, Dist- Nashik

Induction Program 2024-25
Attendance

Date:- 22/07/2024

Sr. No.	Name of the Student	Mobile No.	Signature
25	Sahil keshav shinde	8468808832	S.K.Shinde
26	Yuvraj Ganesh Jagtap	7498403262	Jagtap
27	Sanghamitra Prashant Bhadange	8626078339	S.P.Bhadange.
28]	Prathamesh Liladhar shirsath	9284366186	Shirsath
29)	Awali sachin Dnyaneshwar	9970955824	S. D. Awali
30)	Ganesh Kisan Kasewale	8767629669	Kasewale
31]	Pradip Chandar Hambir	7620243783	Pradip
32)	Damini Somnath Nawale	9579172819	Nawale
33]	Pooja Rajendra Jadhav	8788108302	
34]	Sakshi Raju Ghare	7083864483	Ghare
35)	Shubhangi Sanjay Mhasane	8692815449	Mhasane
36)	Akanksha Malhari Gore	9226118251	A.M.Gore
37]	Ashwini vitthal chaudhari	9370126274	Chaudhari
38]	Ashwini Bhausaheb Surude	9371752497	Surude.
39]	Ketan Shivnath Gatir	8010788287.	Gatir
40)	Aniket Dilip Suryavanshi	7972646429	Suryavanshi
41]	Rushikaraj J Pinelariya	7499531415	Pinelariya
42]	Sanjivani Shivaji Bhosale	9322119018	Bhosale
43)	Sakshi Prakash Bhosale	8730809182	Bhosale
44)	Sakshi Rajesh Bhosale	7620915773	Bhosale
45	Tanu Balasaheb khule	9022624547	Khule
46	Rahul Shivaji Jadhav	7820980521	Jadhav

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Igatpuri, Dist. Nashik


K.P.G. ARTS, COMMERCE AND SCIENCE
COLLEGE, IGATPURI
Near Take-Ghoti, Mumbai Agra Road, Igatpuri, Dist.Nashik - 422 403.
MONDAY
22 July 2024
INDUCTION PROGRAM
F.Y.B.Com. 2024-25
Dept. of Commerce
Resident Dr. MIRAN RAKIBE (Principal)
GPS Map Camera
Takeghoti, Maharashtra, India
PJ22+3F4, Takeghoti, Maharashtra 422402, India
Lat 19.70016°
Long 73.60105°
22/07/24 10:27 AM GMT +05:30
Google

Vidya Prasarak Samaj's
K.P.G. ARTS, COMMERCE AND SCIENCE
IGATPURI
Near Take-Ghoti, Mumbai Agra Road, Tal. Igatpuri, Dist.Nashik - 422 403.
MONDAY
22 July 2024
INDUCTION PROGRAM
F.Y.B.Com 2024-25
Dept. of Commerce
GPS Map Camera
Takeghoti, Maharashtra, India
PJ22+3F4, Takeghoti, Maharashtra 422402, India
Lat 19.70016°
Long 73.60105°
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Mara Vidya Prasarak Samaj's
K.P.G. ARTS, COMMERCE AND SCIENCE
IGATPURI
Near Take-Ghoti, Mumbai Agra Road, Tal. Igatpuri, Dist.Nashik - 422 403.
MONDAY
22 July 2024
INDUCTION PROGRAM
F.Y.B.Com. 2024-25
Dept. of Commerce
President Dr. KIRAN RAK
(Principal)
Prof. J.R. Bhoge
(Faculty Incharge
Co-ordinator)
GPS Map Camera
Takeghoti, Maharashtra, India
PJ22+3F4, Takeghoti, Maharashtra 422402, India
Lat 19.70017°
Long 73.601044°
22/07/24 11:52 AM GMT +05:30
Google

Maratha Vidya Prasarak Samaj's
K.P.G. ARTS, COMMERCE AND SCIENCE
IGATPURI
Near Take-Ghoti, Mumbai Agra Road, Tal. Igatpuri, Dist.Nashik - 422 403.
MONDAY
22 July 2024
INDUCTION PROGRAM
F.Y.B.Com. 2024-25
Dept. of Commerce
INDUCTION
PROGRAM 2024-2
GPS Map Camera
Takeghoti, Maharashtra, India
PJ22+3F4, Takeghoti, Maharashtra 422402, India
Lat 19.700161°
Long 73.60105°
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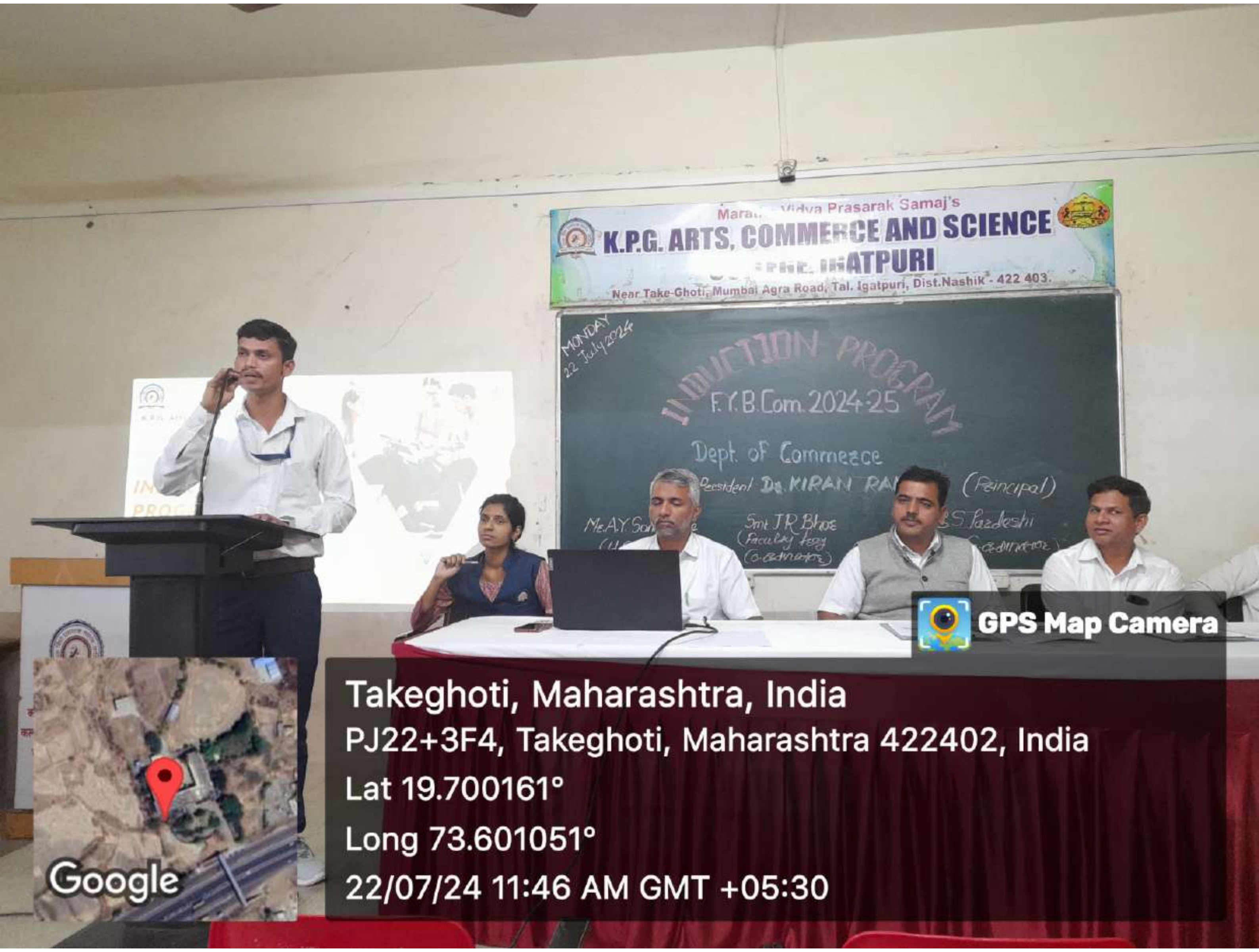
Maratha Vidya Prasarak Samaj's
K.P.G. ARTS, COMMERCE AND SCIENCE
IGATPURI
Near Take-Ghoti, Mumbai Agra Road, Tal. Igatpuri, Dist.Nashik - 422 403.
MONDAY
22 July 2024
INDUCTION PROGRAM
F.Y.B.Com 2024-25
Dept. of Commerce
(Principal)
Smt J.R. Bhose
(Faculty Reg
Co-ordinator)
GPS Map Camera
Takeghoti, Maharashtra, India
PJ22+3F4, Takeghoti, Maharashtra 422402, India
Lat 19.700161°
Long 73.601051°
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COLLEGE, IGATPURI
INDUCTION PROGRAM
F.Y.B Com 2024-25
Dept. of Commerce
GPS Map Camera
Takeghoti, Maharashtra, India
PJ22+3F4, Takeghoti, Maharashtra 422402, India
Lat 19.70016°
Long 73.601044°
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K.P.G. ARTS, COMMERCE AND SCIENCE
COLLEGE, IGATPURI
Near Take-Ghoti, Mumbai Agra Road, Tal. Igatpuri, Dist.Nashik - 422 403.
INDUCTION PROGRAM
F.Y.B.Com. 2024-25
Dept. of Commerce
GPS Map Camera
Takeghoti, Maharashtra, India
PJ22+3F4, Takeghoti, Maharashtra 422402, India
Lat 19.70016°
Long 73.60105°
22/07/24 10:23 AM GMT +05:30
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...EGE, IGATPURI
Near Take-Ghoti, Mumbai Agra Road, Tal. Igatpuri, Dist.Nashik - 422 403.
MONDAY
22 July 2024
INDUCTION PROGRAM
F.Y.B.Com. 2024-25
Dept. of Commerce
President Dr. KIRAN ... (Principal)
Smt. J.R. Bhoe
(Faculty Incharge
Co-ordinator)
Pradeshi
GPS Map Camera
Takeghoti, Maharashtra, India
PJ22+3F4, Takeghoti, Maharashtra 422402, India
Lat 19.70016°
Long 73.60105°
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COLLEGE, IGATPURI
Near Take-Ghoti, Mumbai Agra Road, Tal. Igatpuri, Dist.Nashik - 422 403.
MONDAY
22 July 2024
INDUCTION PROGRAM
F.Y.B.Com. 2024-25
Dept. of Commerce
President Dr. MIRAN RAKI
(Principal)
Smt. J.R. Bhoye
(Faculty Incharge)


K.P.G. ARTS, COMMERCE AND SCIENCE
COLLEGE, IGATPURI
INDUCTION PROGRAM
F.Y.B.Com 2024-25
Dept of Commerce
GPS Map Camera
Takeghoti, Maharashtra, India
PJ22+3F4, Takeghoti, Maharashtra 422402, India
Lat 19.700166°
Long 73.601051°
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K.P.G. ARTS, COMMERCE AND SCIENCE
COLLEGE, IGATPURI
Near Take-Ghoti, Mumbai Agra Road, Tal. Igatpuri, Dist. Nashik - 422 403.
MONDAY
22 July 2024
INDUCTION PROGRAM
F.Y.B.Com 2024-25
Dept. of Commerce
GPS Map Camera
Takeghoti, Maharashtra, India
PJ22+3F4, Takeghoti, Maharashtra 422402, India
Lat 19.70016°
Long 73.601051°
22/07/24 11:47 AM GMT +05:30
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Affiliated to Savitribai Phule Pune University, Pune

Program Outcomes, Program Specific Outcomes, Course specific Outcomes(Academic Year 2024-25)

1) FACULTY OF ARTS

1	DEPARTMENT OF MARATHI
2	DEPARTMENT OF HINDI
3	DEPARTMENT OF ENGLISH
4	DEPARTMENT OF ECONOMICS
5	DEPARTMENT OF POLLITICAL SCIENCE
6	DEPARTMENT OF GEOGRAPHY

2) FACULTY OF COMMERECE

3) FACULTY OF SCIENCE

1	DEPARTMENT OF CHEMISTRY
2	DEPARTMENT OF BOTANY
3	DEPARTMENT OF PHYSICS
4	DEPARTMENT OF ZOOLOGY
5	DEPARTMENT OF MATHS
6	DEPARTMENT OF COMPUTER SCIENCE

DEPARTMENT OF MARATHI
(2024Pattern)

B.A. MARATHI

PO 1	मराठी भाषा, साहित्य आणि त्यांच्या इतिहासाचे ज्ञान देणे. विद्यार्थ्यांच्या वाङ्मयीन आणि जीवनविषयक जाणिवा समृद्ध करणे.
PO 2	मराठीतील साहित्यविचाराचे ज्ञान देणे.
PO 3	मराठी समीक्षा व्यवहाराचे ज्ञान देणे.
PO 4	विद्यार्थ्यांमध्ये प्रात्यक्षिकांच्या माध्यमातून भाषिक कौशल्य विकासाची जाणीव-जागृती घडवून आणणे आणि त्यांच्यात मराठीतील भाषिक कौशल्यांचा विकास करणे.
PO 5	विद्यार्थ्यांमध्ये प्रात्यक्षिकांच्या माध्यमातून मराठी भाषेतील रोजगाराची कौशल्ये आणि क्षमता विकसित करणे.
PO 6	मराठीतील विविध साहित्यप्रकारांचा परिचय करून देणे.
PO 7	साहित्यनिर्मितीच्या प्रेरणा व प्रवृत्ती लक्षात घेऊन साहित्याचे आकलन करून घेणे.
PO 8	साहित्यकृतींच्या चिकित्सक अभ्यासाची प्रवृत्ती वृद्धिंगत करणे.
PO 9	भारतीय ज्ञानपरंपरेची विद्यार्थ्यांना ओळख करून देणे.
PO 10	विद्यार्थ्याचा सर्वांगीण व्यक्तिमत्व विकास साधून त्याला सुसंस्कारित नागरिक म्हणून सिद्ध होण्यास मदत करणे.

(2019Pattern)

Sr.No.	Program Outcomes
PO 1	मराठी भाषा आणि साहित्यातील पायाभूत सैद्धांतिक घटकांचे आकलन होईल.
PO 2	विविध दृष्टीकोनातून स्पष्टतापूर्ण वाचन आणि अभिव्यक्ती करता येईल.

PO 3	चिकित्सक विचार करण्याची कौशल्ये आत्मसात होतील.
PO 4	भाषिक समस्यांचा शोध घेऊन योग्य ते उपाय शोधण्याचा प्रयत्न करू शकेल.
PO 5	प्राप्त माहितीचे वस्तुनिष्ठपणे विश्लेषण आणि कारणमीमांसा करता येईल.
PO 6	संशोधनवृत्ती निर्माण होईल.
PO 7	सामुहिक ध्येयप्राप्तीसाठी एकत्र येऊन काम करणे.
PO 8	तार्किकदृष्ट्या प्राप्त माहितीचे परीक्षण करेल.
PO 9	वैचारिक प्रगल्भता विकसित होईल.
PO 10	वैयक्तिकरित्या वेगवेगळ्या कृती स्वतंत्रपणे करता येतील.
PO 11	सहजपणे दृक्श्राव्य माध्यमांची हाताळणी करता येईल.
PO 12	विद्यार्थ्यांमध्ये सामाजिक व सांस्कृतिक जाण विकसित होऊन सामाजिक सामंजस्य निर्माण होईल.
PO 13	सर्वांचा आदर करणे आणि विश्वबंधुत्वाची भावना विकसित होण्यास मदत होईल.
PO 14	अनेकविध क्षेत्रांत नेतृत्व करण्याची कौशल्ये आत्मसात होतील.
PO 15	सतत अध्ययन व संशोधन करण्याची शाश्वत आवड निर्माण होईल.

M.A. MARATHI(2023 Pattern)

PO 1	पदव्युत्तर पातळीवरील विद्यार्थ्यांच्या वाङ्मयीन आणि जीवनविषयक जाणीवा समृद्ध करणे.
PO 2	विशिष्ट कालखंडातील साहित्यनिर्मितीच्या प्रेरणा व प्रवृत्ती लक्षात घेऊन साहित्याचे आकलन करून घेणे.
PO 3	वाङ्मयीन परंपरेची जाणीव करून देणे.

PO 4	विविध भाषाभ्यासाच्या पद्धतींची ओळख करून देणे.
PO 5	मुलभूत साहित्यसिद्धांतांचा परिचय करून देणे.
PO 6	विद्यार्थ्यांमध्ये भाषिक कौशल्ये विकासाची जाणीव-जागृती घडवून आणणे.
PO 7	साहित्यकृतींच्या चिकित्सक अभ्यासाची प्रवृत्ती वृद्धिंगत करणे.
PO 8	विविध समीक्षापद्धतींची ओळख करून देणे.
PO 9	विद्यार्थ्यांमध्ये रोजगाराच्या क्षमता विकसित करणे.
PO 10	अभ्यासकाचे व्यक्तिमत्त्व सुसंस्कारित करणे.
Sr.No.	**Program Outcomes**
PO 1	पदव्युत्तर पातळीवरील विद्यार्थ्यांच्या वाङ्मयीन आणि जीवनविषयक जाणीवा समृद्ध होतील.
PO 2	साहित्यकृतींच्या चिकित्सक अभ्यासाची प्रवृत्ती वृद्धिंगत होईल.
PO 3	भाषिक जाणीवा विकसित करून कौशल्यात्मक उपयोजनासाठी सिद्ध होतील.
PO 4	विविध जीवनक्षेत्रातील भाषाविषयक कौशल्य ग्रहणानंतर रोजगारक्षमतांची आणि प्राविण्यांची निर्मिती होईल.
PO 5	विशिष्ट कालखंडातील साहित्यनिर्मितीच्या प्रेरणा व प्रवृत्ती लक्षात घेऊन साहित्याचे नेमके आकलन करून घेता येईल.
PO 6	तौलनिक अभ्यास, भाषांतर मीमांसा, प्रभाव अभ्यास, आंतरविद्याशाखीय दृष्टी, परभाषेतील समकालीन साहित्यकृती, वाङ्मयेतिहास, संस्कृती अभ्यास, भाषिक अभ्यास याद्वारे साहित्याच्या अभ्यासाला परिपूर्णता आणता येईल.
PO 7	पौर्वात्य व पाश्चात्य साहित्यविचार, साहित्यसिद्धांत, समीक्षा, साहित्यविमर्श, विविध वाङ्मयीन संप्रदाय, वेळोवेळी उद्भवणाऱ्या जीवनविषयक व वाङ्मयीन चर्चा, संकल्पना यांचा पैस विद्यार्थ्यांना परिचित होईल.

PO 8	संशोधनाची निरनिराळी अंगे तसेच संशोधनाच्या विविध पद्धतींची ओळख होईल.

(2024Pattern)

Sr.No.	Program Outcomes
PO 1	पदव्युत्तर पातळीवरील विद्यार्थ्यांच्या वाङ्मयीन आणि जीवनविषयक जाणीवा समृद्ध होतील.
PO 2	साहित्यकृतींच्या चिकित्सक अभ्यासाची प्रवृत्ती वृद्धिंगत होईल.
PO 3	भाषिक जाणीवा विकसित करून कौशल्यात्मक उपयोजनासाठी सिद्ध होतील.
PO 4	विविध जीवनक्षेत्रातील भाषाविषयक कौशल्य ग्रहणानंतर रोजगारक्षमतांची आणि प्राविण्यांची निर्मिती होईल.
PO 5	विशिष्ट कालखंडातील साहित्यनिर्मितीच्या प्रेरणा व प्रवृत्ती लक्षात घेऊन साहित्याचे नेमके आकलन करून घेता येईल.
PO 6	तौलनिक अभ्यास, भाषांतर मीमांसा, प्रभाव अभ्यास, आंतरविद्याशाखीय दृष्टी, परभाषेतील समकालीन साहित्यकृती, वाङ्मयेतिहास, संस्कृती अभ्यास, भाषिक अभ्यास याद्वारे साहित्याच्या अभ्यासाला परिपूर्णता आणता येईल.
PO 7	पौर्वात्य व पाश्चात्य साहित्यविचार, साहित्यसिद्धांत, समीक्षा, साहित्यविमर्श, विविध वाङ्मयीन संप्रदाय, वेळोवेळी उद्भवणाऱ्या जीवनविषयक व वाङ्मयीन चर्चा, संकल्पना यांचा पैस विद्यार्थ्यांना परिचित होईल.
PO 8	संशोधनाची निरनिराळी अंगे तसेच संशोधनाच्या विविध पद्धतींची ओळख होईल.

(2024 Pattern)

B.A. MARATHI

Sr.No.	Program Specific Outcomes
PSO 1	साहित्यविषयक विविध संकल्पना आणि साहित्याचे सौंदर्यशास्त्र यांचे आकलन होईल.
PSO 2	भाषिक कौशल्ये आत्मसात होतील आणि तंत्रज्ञानाचा भाषिक व्यवहारात कौशल्यपूर्ण वापर करता येईल.
PSO 3	मराठी भाषा आणि साहित्यविषयक संशोधनवृत्ती निर्माण होईल.
PSO 4	व्यक्तिमत्व विकासास चालना मिळून जबाबदार नागरिक म्हणून जडणघडण होण्यास मदत होईल.

(2019Pattern)

Sr.No.	Program Specific Outcomes
PSO 1	साहित्यविषयक विविध संकल्पना आणि साहित्याचे सौंदर्यशास्त्र यांचे आकलन होईल.
PSO 2	भाषिक कौशल्ये आत्मसात होतील आणि तंत्रज्ञानाचा भाषिक कौशल्यपूर्ण वापर करता येईल.
PSO 3	मराठी भाषा आणि साहित्यविषयक संशोधनवृत्ती निर्माण होईल.
PSO 4	व्यक्तिमत्व विकासास चालना मिळून जबाबदार नागरिक म्हणून जडणघडण होण्यास मदत होईल.

M.A. MARATHI

(2023Pattern)

Sr.No.	Program Specific Outcomes
PSO 1	वाङ्मयीन मूल्यांचे आणि जीवनमूल्यांचे संस्कार विद्यार्थ्यांमध्ये रुजविण्यास मदत होईल.
PSO 2	वाचन, आस्वादन, विश्लेषण, वर्गीकरण, मूल्यनिर्णयन या प्रक्रियेतून विद्यार्थ्यांची वाङ्मय आकलनाची क्षमता वृद्धिंगत होईल.

PSO 3	साहित्य आणि संस्कृती यांचा परस्पराश्रयी संबंध जागतिक परिप्रेक्षात लक्षात घेण्यासाठी क्षमता व कौशल्ये निर्माण होतील.
PSO 4	मराठी भाषा, साहित्य आणि संस्कृती यांच्या अनुबंधाचा शोध घेता येईल.

(2024Pattern)

Sr.No.	Program Specific Outcomes
PSO 1	वाङ्मयीन मूल्यांचे आणि जीवनमूल्यांचे संस्कार विद्यार्थ्यांमध्ये
PSO 2	वाचन, आस्वादन, विश्लेषण, वर्गीकरण, मूल्यनिर्णयन या प्रक्रियेतून विद्यार्थ्यांची वाङ्मय आकलनाची क्षमता वृद्धिंगत होईल.
PSO 3	साहित्य आणि संस्कृती यांचा परस्पराश्रयी संबंध जागतिक परिप्रेक्षात लक्षात घेण्यासाठी क्षमता व कौशल्ये निर्माण होतील.
PSO 4	मराठी भाषा, साहित्य आणि संस्कृती यांच्या अनुबंधाचा शोध घेता येईल.

B.A. MARATHI

(2024 Pattern)

Sr. No.	Class	Sem	Subject with Code	Course Outcomes

1.	**F.Y.B.A**	**I**	**DSC: MAR-101-T साहित्याचे स्वरूप (निवेदनात्म साहित्यप्रकार) अभ्यासपुस्तक : मन में है विश्वास (लेखक – विश्वास नांगरे पाटील)**	▪ साहित्याचे स्वरूप आणि साहित्यप्रकारांची संकल्पना ज्ञात होईल. ▪ आत्मकथन या साहित्यप्रकाराचे स्वरूप, प्रेरणा, वैशिष्ट्ये आणि मराठी आत्मकथनांची वाटचाल यांचे ज्ञान विद्यार्थी आत्मसात करतील. ▪ आत्मकथनांच्या अभ्यासातून साहित्याचा आस्वाद घेण्याची प्रेरणा मिळेल. ▪ आत्मकथन या साहित्यप्रकाराच्या संदर्भात विद्यार्थ्यांची आकलन आणि विश्लेषणक्षमता विकसित होईल. ▪ आत्मकथन वाचन, आस्वादन, विश्लेषण, वर्गीकरण, मूल्यनिर्णयन या प्रक्रियेतून विद्यार्थ्यांची साहित्यविषयक अभ्यासाची
2.	**F.Y.B.A**	**I**	**DSC: MAR-102-P साहित्यप्रकारांचे सादरीकरण [2P]**	▪ साहित्यप्रकारांची आवाहनक्षमता ज्ञात होईल. ▪ साहित्यप्रकारांचे वाचन करण्याचे कौशल्य विद्यार्थी आत्मसात करतील. ▪ साहित्यप्रकारांचे कौशल्यपूर्ण वाचन करू शकतील. ▪ साहित्यप्रकारांचे वाचन आणि सादरीकरण करण्यासंदर्भात विद्यार्थ्यांची आकलन आणि विश्लेषणक्षमता विकसित होईल. ▪ काव्यवाचन, कथाकथन, कादंबरीचे अभिवाचन, चरित्रकथन, आत्मनिवेदन इत्यादींचे सादरीकरण करताना

3.	**F.Y.B.A.**	**Sem II**	**DSC: MAR-151-T साहित्याचे स्वरूप (काव्यात्म साहित्यप्रकार) [2T] अभ्यासपुस्तक : गीतमाला (संपादित गीतसंग्रह)**	▪ काव्यात्म साहित्यप्रकाराचे स्वरूप आणि साहित्यप्रकाराची संकल्पना यांचा परिचय होईल. ▪ 'गीत' या साहित्यप्रकाराचे स्वरूप, प्रेरणा, वैशिष्ट्ये आणि मराठी गीतांची वाटचाल यांचे ज्ञान विद्यार्थी आत्मसात करतील. ▪ गीतांच्या अभ्यासातून साहित्याचा आस्वाद घेण्याची प्रेरणा मिळेल. ▪ 'गीत' या साहित्य प्रकाराच्या संदर्भात विद्यार्थ्यांची आकलन आणि विश्लेषणक्षमता विकसित होईल. ▪ गीतांचे वाचन, गायन, आस्वाद, विश्लेषण,
4.	**F.Y.B.A.**	**Sem II**	**DSC: MAR-152-P साहित्यप्रकारांचे लेखन / अवलोकन [2P]**	▪ साहित्य आणि सर्जन यांचे स्वरूप आणि साहित्यलेखनाची कौशल्ये ज्ञात होतील. ▪ साहित्य प्रकारांचे लेखन करण्याच्या कौशल्यांचे आकलन होईल. ▪ साहित्यप्रकारांच्या रूपबंधांची वैशिष्ट्ये सांगू शकतील. ▪ साहित्यप्रकारांचे सर्जनशील आणि अवलोकनपर लेखन करण्यासंदर्भात विद्यार्थ्यांची आकलनक्षमता आणि विश्लेषणक्षमता विकसित होईल. ▪ साहित्यप्रकारांचे सर्जनशील आणि अवलोकनपर लेखन करताना

5.	**F.Y.B.A.**	**Sem I**	**SEC : 101-MAR-T उपयोजित मराठी लेखनकौशल्ये [2T]**	▪ मराठी भाषेच्या विनिमयाच्या विविध रूपांचा परिचय होईल. ▪ जीवनव्यवहारातील भाषेच्या उपयोजनाच्या कौशल्यांची जाण प्राप्त होईल. ▪ कार्यक्रमाचे सूत्रसंचालन, कार्यक्रमाचे अहवाललेखन, वर्णनपर लेखन, व्यक्तिप्रतिमा निर्मितीपर लेखन अशा स्वरूपाचे लेखन करता येईल. ▪ भाषेच्या विनिमयाच्या विविध रूपांचे विश्लेषण करता येईल. ▪ कार्यक्रमाचे सूत्रसंचालन, कार्यक्रमाचे
				▪

6.	**F.Y.B.A.**	**Sem II**	**SEC : 151-MAR-P व्यावसायिक मराठी लेखनकौशल्ये [2P]**	▪ मराठी भाषेच्या विनिमयाच्या विविध रूपांचा परिचय होईल. ▪ जीवनव्यवहारातील भाषेच्या उपयल्यांची जाण प्राप्त होईल. ▪ बातमी लेखन, भाषण संहिता लेखन, संवाद लेखन/ मुलाखत लेखन, अर्ज व पत्रलेखन अशा स्वरूपाचे लेखन करता येईल. ▪ भाषेच्या विनिमयाच्या विविध रूपांचे विश्लेषण करता येईल. ▪ बातमी लेखन, भाषण संहिता लेखन, संवाद लेखन/ मुलाखत लेखन, अर्ज व पत्रलेखन या लेखनरूपांचे मूल्यमापन
7.	**F.Y.B. Com./ B.Sc./ B.C.S.**	**Sem I**	**Open Elective [OE] OE-H-101-MAR-T व्यक्तिमत्त्व विकास आणि भाषा [2T]**	▪ व्यक्तिमत्त्व संकल्पना व तिचे स्वरूप यांचे ज्ञान अवगत होईल. ▪ व्यक्तिमत्त्व विकासाचे जीवनातील स्थान आणि महत्त्व स्पष्ट करता येईल. ▪ जीवनव्यवहारात भाषिक कौशल्यांचा प्रभावी वापर करता येईल. ▪ व्यक्तिमत्त्व विकासातील भाषेच्या उपयोजनाचे विश्लेषण करता येईल. ▪ व्यक्तिमत्त्व विकासातील भाषेच्या उपयोजनाचे मूल्यमापन करता येईल. ▪ व्यक्तिमत्त्वाचा विकास साधण्यास विद्यार्थी

8.	**F.Y.B. Com./ B.Sc./ B.C.S .**	**Sem II**	**Open Elective [OE] OEP-H-151-MAR-P व्यावहारिक मराठी [2T]**	▪ मराठीच्या विविध व्यवहारक्षेत्रांचा परिचय होईल. ▪ निबंधलेखन, अर्जलेखन व पत्रलेखन यांच्या स्वरूपाचे आकलन होईल. ▪ निबंधलेखन, अर्जलेखन व पत्रलेखनाचे समाजव्यवहारात उपयोजन करता येईल. ▪ व्यवहार भाषेच्या वेगळेपणाचे विश्लेषण करता येईल. ▪ व्यावहारिक गरजेनुसार भाषाबदल करता

(2019Pattern)

9.	**SYBA**	**III**	भाषिक कौशल्य विकास आणि आधुनिक मराठी साहित्यप्रकार	• कांदबरी या साहित्य प्रकाराचे स्वरूप, घटक, प्रकार आणि वाटचाल यांची ओळख • नेमेलेल्या कांदबरीचा आस्वाद घेऊन • नवतंत्रज्ञानाचा अभ्यास करणे. • प्रभाकर पेंढारकर लिखित 'रारंगढांग' या कादंबरीचे विश्लेषण, मूल्यमापन करणे.
10.	**SYBA**	**III**	आधुनिक मराठी साहित्यः प्रकाशवाटा **23021 –**	• मराठीतील आत्मचरित्र या संकल्पनेची • साहित्यकृतीचे आस्वाद व आकलन • ललितगद्य साहित्य प्रकाराचा अभ्यास • मराठी भाषिक संज्ञापन कौशल्यांचे व्यवहारिक जीवनात उपयोजन करणे.
11.	**SYBA**	**III**	साहित्यविचार **23022 – S2**	• भारतीय आणि पाश्चात्य साहित्याच्या आधारे साहित्याची संकल्पना, स्वरूप आणि प्रयोजन विचार समजून देणे. साहित्याची निर्मिती प्रक्रिया समजावून देणे. • साहित्याची निर्मिती प्रक्रिया समजावून देणे. • साहित्याची भाषा आणि शैली विषयक विचार समजावून देणे. • साहित्य व समाज यांचा सहसंबंध तपासणे.
12.	**SYBA**	**III**	प्रकाशन व्यवहार	• प्रकाशन व्यवहार आणि संपादन यांची • ग्रंथनिर्मितीप्रक्रिया समजावून देणे.

			आणि संपादन **23025 SEC**	• संहिता संपादन समजावून देणे. • प्रकाशन संस्था व जाहिरात यांचे व्यवहारिक जीवनातील उपयोजन स्पष्ट
13.	**SYBA**	**III**	मराठी भाषिक संज्ञापन कौशल्ये **23011 MIL**	• भाषा व व्यक्तिमत्त्व विकास यांची ओळख • प्रसारमाध्यमांसाठी आवश्यक संज्ञापन • मुद्रित शोधनाची संकल्पना समजून सांगणे. • मराठी भाषिक संज्ञापन कौशल्यांचे व्यवहारिक जीवनात उपयोजन करणे.
14.	**SYBA**	**IV**	भाषिक कौशल्य विकास आणि आधुनिक मराठी साहित्य प्रकार ललित	• ललित गद्य गद्य, या साहित्य प्रकाराचे स्वरूप घटक प्रकार आणि वाटचाल • नेमलेल्या अभ्यासपुस्तकातील ललितगद्याचे आस्वाद आणि आकलन • गुगल साधनांचा अध्ययन व व्यावहारिक जीवनात प्रभावीपणे वापर करणे. • साहित्यरंग या पुस्तकाचे विश्लेषण आणि
15.	**SYBA**	**IV**	मध्ययुगीन मराठी साहित्य: निवडक मध्ययुगीन गद्य, पद्य **24021 – S1**	• मध्ययुगीन गद्य-पद्य साहित्यप्रकारांची • नेमलेल्या अभ्यासपुस्तकातील मध्ययुगीन गद्य पद्य साहित्याचा आस्वाद आणि • मध्ययुगीन कालखंडातील प्रेरणा व • मध्ययुगीन कालखंडातील साहित्याचे व भाषेचे विश्लेषण करणे.
16.	**SYBA**	**IV**	साहित्य समीक्षा **24024 – S2**	• साहित्य समीक्षेची संकल्पना, स्वरूप यांचा • साहित्य आणि समीक्षा यांचे परस्पर संबंध • साहित्य प्रकारानुसार समीक्षेचे स्वरूप • विविध समीक्षा पद्धतीच्या आधारे विद्यार्थी मध्ये समीक्षात्मक दृष्टिकोन निर्माण करणे.
17.	**SYBA**	**IV**	उपयोजित लेखन कौशल्ये	• जाहिरात, मुलाखतलेखन आणि संपादन • दृकश्राव्य माध्यमासाठी मुलाखत कौशल्याची ओळख करून देणे. • माहितीपर नोंदींची ओळख करून देणे.

			24025 – SEC	• जाहिरात, मुलाखत लेखन आणि संपादन या उपयोजित कौशल्याचे दैनंदिन
18.	**SYBA**	**IV**	नवसमाजमाध्यमे आणि समाज माध्यमांसाठी मराठी	• भाषा व जीवन व्यवहार यांचा सहसंबंध
				• नवसमाजमाध्यमांविषयी जागरूकता
				• व्यावसायिक पत्रव्यवहाराची ओळख
				• समाजमाध्यमांचे महत्त्व आणि परिणामाचे
19.	**TYBA**	**V**	भाषिक कौशल्य विकास आणि आधुनिक मराठी साहित्यप्रकार	• मुद्रितमाध्यमांसाठी लेखन
				• प्रवासवर्णन या साहित्यप्रकाराचे स्वरूप, प्रेरणा, प्रयोजन आणि वैशिष्ट्ये समजून
				• तीन मुलांचे चार दिवस या पुस्तकाचे
				• तीन मुलांचे चार दिवस या प्रवासवर्णनाचे आकलन, आस्वाद, आकलन आणि
20.	**TYBA**	**V**	मराठी वाङ्मयाचा स्थूल इतिहास प्रारंभ ते इ.स. १६०० **35021 – S3**	• साहित्य इतिहासाची संकल्पना, स्वरूप, प्रेरणा, प्रवृत्ती समजावून सांगणे.
				• मध्ययुगीन कालखंडाची सामाजिक, सांस्कृतिक पार्श्वभूमी समजून देणे.
				• मराठी भाषा साहित्याची कालखंडानुसार विभागणी करणे व इतिहास समजून देणे.
				• मध्ययुगीन कालखंडातील विविध साहित्यप्रकारांचा अभ्यास व विश्लेषण
21.	**TYBA**	**V**	वर्णनात्मक भाषाविज्ञान **35022 – S4**	• मराठी साहित्य, कौशल्य विकास आणि शासन व्यवहार यांची ओळख करून देणे.
				• राज्यघटनेतील भाषा विषयक तरतुदीचा
				• रूप कवितेचे या नेमलेल्या अभ्यास पुस्तकातील निवडक कवितांचे आस्वाद,
				• मराठी कवितेच्या प्रेरणा, प्रवृत्ती, स्वरूप व वाटचाल समजून देणे.
22.	**TYBA**	**V**	कार्यक्रम संयोजनातील	• कार्यक्रमाचे स्वरूप व प्रकार समजून
				• कार्यक्रमसंयोजनातील भाषिक कौशल्ये

			भाषिक कौशल्ये **35025 – SEC**	• कार्यक्रम नियोजन, सूत्रसंचालन यांची • आयोजक, प्रायोजक, जाहिरातदार, निवेदक यांचे कार्य व महत्त्व समजून
23.	**TYBA**	**VI**	मराठी भाषिक कौशल्य विकास आणि आधुनिक मराठी साहित्यप्रकार	• मराठी साहित्य, कौशल्य विकास आणि शासन व्यवहारयांची ओळख करून देणे. • राज्यघटनेतील भाषा विषयक तरतुदीचा • रूप कवितेचे या नेमलेल्या अभ्यास पुस्तकातील निवडक कवितांचे आस्वाद, • मराठी कवितेच्या प्रेरणा, प्रवृत्ती, स्वरूप व वाटचाल समजून देणे.
24.	**TYBA**	**VI**	मध्ययुगीन मराठी वाङ्मयाचा स्थूल इतिहास इ.स. १६०१ ते १८१७ **36021 – S3**	• शिवकाल आणि पेशवेकालातील वाङ्मयीन प्रेरणा, प्रवृत्ती, स्वरूप समजून • संत तुकाराम, रामदास, अनंत फंदी, मोरोपंत, रामजोशी, प्रभाकर इ. संत, पंडित व शाहिर कवींचे मराठी • बखर वाङ्मय प्रेरणा, प्रवृत्ती, स्वरूप • सभासद बखर, शिवछत्रपतीचे सप्त प्रकरणात्मक चरित्र, भाऊसाहेबांची बखर पानिपत बखर आज्ञापत्र अभ्यासणे व
25.	**TYBA**	**VI**	वर्णनात्मक भाषाविज्ञान **36022 – S4**	• रुपविन्यास आणि मराठीची रूप व्यवस्था • वाक्यविन्यास आणि मराठी भाषे संदर्भात वाक्यव्यवस्थेचा परिचय करून देणे. • अर्थविन्यास या संकल्पनेचा भाषाविज्ञानाच्या अंगाने परिचय करून • क्षेत्रभेट व संशोधन प्रकल्प यांचे महत्त्व
26.	**TYBA**	**VI**	कार्यक्रम संयोजनातील भाषिक कौशल्ये	• विषयाशी अनिवार्य कार्यक्रम संयोजनातील लेखन कौशल्ये समजावून सांगणे. • आभासी कार्यक्रम संयोजनाचा परिचय • निमंत्रणपत्रिका, मानपत्र लेखन, अहवाल लेखन इ. कौशल्ये समजावून सांगणे.

			36025 – SEC	• कविसमेलन, मराठी भाषादिन. पुस्तकप्र दर्शन इ. कार्यक्रमांचे यशस्वी संयोजन
27.	**FY BCom**	**I**	भाषा, साहित्य आणि कौशल्य विकास : उत्कर्षवाटा – **117**	• विविध क्षेत्रातील कर्तृत्ववान व्यक्तींच्या विचारांची वकार्याची ओळख करून देणे.
				• मराठी साहित्यातील भिन्नभिन्न प्रवाह आणि प्रकार ओळख करुन समजावून देणे.
				• साहित्याभ्यासातून जीवनविषयक समज
				• वाणिज्य शाखा व मराठी साहित्ययातील परस्परसंबंधाचे मूल्यमापन करणे.
28.	**FY BCom**	**II**	भाषा आणि कौशल्यविकास – **127**	• भाषिक कौशल्ये विकास करणे.
				• विद्यार्थ्यांना पारिभाषिक संज्ञांचा परिचय
				• व्यक्तिमत्त्व विकासात मराठी भाषेचे स्थान
				• जागतिकीकरणात विविध क्षेत्रांना सामोरे जाण्यासाठी भाषिक क्षमता विकसित
29.	**SY BSc.**	**III**	उपयोजित मराठी – **83111**	• मराठी भाषा आणि जीवन व्यवहार यांची
				• प्रसारमाध्यमातील विविध लेखनप्रकारांचा अभ्यास वा प्रत्यक्षलेखन अभिरुचीचा
				• नवसमाजमाध्यमे व प्रशासकीय लेखन यामधील विविध संधीची माहिती देणे.
				• जागतिकीकरणात विविध क्षेत्रांना सामोरे जाण्यासाठी भाषिक क्षमता विकसित
30.	**SY BSc.**	**IV**	मराठी कथा दर्शन – **83112**	• साहित्य विषयक अभिरुची विकसित
				• साहित्य विषयक अभ्यासातून जीवनविषयक समज विकसित करणे.
				• विज्ञान साहित्य विषयक आकलन क्षमता
				• निवडक विज्ञान कथांचा आस्वाद घेऊन त्यांचे विश्लेषण करण्याची क्षमता विकसित
NEP – 2023 – 24 Pattern – MA – I & II (Sem- I, II, III, IV)				
31.		**I**		• वाङ्मयेतिहासाच्या स्वरूपाचा विद्यार्थ्यांना

	MA I 2023 Patt.		अर्वाचीन मराठी वाङ्मयाचा इतिहास (इ.स. १८१८ ते १९२०) – **MAR 501 MJ**	• अव्वल इंग्रजी कालखंडातील साहित्याच्या प्रेरणा, प्रवृत्ती, स्वरूप यांचे विवेचन करता
				• इ.स. १८१८ ते १९२० या कालखंडातील साहित्याचे स्वरूप विशद करता येईल.
				• इ.स. १८१८ ते १९२० या कालखंडातील साहित्याच्या प्रेरणा, प्रवृत्ती यांचे विश्लेषण
				• इ.स. १८१८ते१९२०या कालखंडातील साहित्याची कारण मीमांसा करता येईल.
				• इ.स. १८१८ ते १९२० या कालखंडातील साहित्या निर्मितीच्या प्रेरणा, प्रवृत्ती लक्षात येऊन विद्यार्थ्यांना साहित्यनिर्मिती आणि
32.	**MA I 2023 Patt.**	**I**	ऐतिहासिक भाषाविज्ञान – **MAR 502 MJ**	• ऐतिहासिक भाषाविज्ञानाचे स्वरूप व संकल्पना स्पष्ट करता येईल.
				• ऐतिहासिक भाषाविज्ञानाचे सिद्धांत महत्त्व आणि मर्यादा विशद करता येतील.
				• ऐतिहासिक भाषा विज्ञानाच्या ज्ञानातून स्थानिक भाषांचा अभ्यास करता येईल. सिद्धांत महत्त्व आणि मर्यादा विशद करता
				• जागतिक व भारतीय भाषांचे अध्ययनाच्या दृष्टीकोनातून वर्गीकरण करता येईल.
				• जागतिक व भारतीय भाषांचा तौलनिक
				• विविध भारतीय भाषा आणि बोली भाषांवर आधारित प्रकल्प तयार करता येतील.
33.	**MA I 2023 Patt.**	**I**	प्रशासनिक लेखन कौशल्ये – **MAR 503 MJ**	• कार्यालयीन लेखन पद्धतीची कौशल्य
				• दैनदिन जीवन आणि रोजगार यासाठी सदर कौशल्याचे उपयोजन करता येईल.
				• विद्यार्थ्यानमध्ये भाषिक कौशल्ये विकसित
				• विद्यार्थ्यांना कार्यालयीन लेखन पद्धतीच्या कौशल्याची ओळख होईल.
				• विद्यार्थ्यांना प्रमाण भाषा आणि कार्यालयीन भाषेचे स्वरूप अवगत झाल्याने

				• कार्यालयीन लेखन पद्धतीची कौशल्य
34.	**MA I 2023 Patt.**	**I**	प्रशासनिक लेखन कौशल्ये – **MAR 503 MJP**	• कार्यालयीन लेखनासंदर्भातील ज्ञान
				• कार्यालयीन लेखन पद्धतीची कौशल्य
				• दैनदिन जीवन आणि रोजगार या साठी सदर कौशल्याचे उपयोजन करता येईल.
				• विद्यार्थ्यांनामध्ये भाषिक कौशल्ये विकसित
				• विद्यार्थ्याना कार्यालयीन लेखन पद्धतीच्या कौशल्याची ओळख होईल.
				• विद्यार्थ्यांना प्रमाणभाषा आणि कार्यालयीन भाषेचे स्वरूप अवगत झाल्याने
35.	**MA I 2023 Patt.**	**I**	प्रकाशन व्यवहार आणि ग्रंथ प्रक्रिया – **MAR 504 MJP**	• प्रकाशन व्यवहारआणि ग्रंथ प्रक्रिया यांचे
				• प्रकाशन व्यवहारा साठी आवश्यक
				• ग्रंथनिर्मिती, ग्रंथाचे सम्पादन आणि
				• प्रकाशन व्यवहार आणि ग्रंथनिर्मिती प्रक्रिया यासाठी आवश्यक कौशल्ये
				• प्रकाशन व्यवहा आणि ग्रंथनिर्मिती प्रक्रिया संबंधीत कौशल्यांचा परिस्थितीनुरूप वापर
				• ग्रंथनिर्मिती प्रक्रियेमध्ये नाविन्यपूर्णता
36.	**MA I 2023 Patt.**	**I**	साहित्यप्रवाहांचा अभ्यास : दलित साहित्य आणि ग्रामीण साहित्य – **MAR 510 MJ**	• साठोत्तरी वाड्मयीन
				• साठोत्तरी वाड्मयीन प्रवाहांचा उगम आणि विकास स्पष्ट होईल.
				• साठोत्तरी आणि त्यापूर्वीच्या साहित्याच्या तौलनिक अभ्यासाची क्षमता विकसित
				• साहित्यकृतींचे साठोत्तरी वाड्मयीन प्रवाहामध्ये वर्गीकरण क्षमता विकसित
				• साहित्यकृतींचे साठोत्तरी वाड्मयीन प्रवाहामध्ये मूल्यमापन करण्याची क्षमता
				• याप्रवाहामध्ये लेखनकरण्याचे कौशल्ये व त्याअनुषंगाने रोजगाराच्या संधी उपलब्ध होण्याच्या दृष्टीने क्षमता विकसित होईल

37.	**MA I 2023 Patt.**	**I**	साहित्य प्रवाहांचा अभ्यास: दलित साहित्य आणि ग्रामीण साहित्य **MAR 510 MJ P**	• साठोत्तरी वाङ्मयीन प्रवाहा विषयी ज्ञान
				• साठोत्तरी वाड्मयीन प्रवाहांचा उगम आणि विकास स्पष्ट होईल.
				• साठोत्तरी आणि त्यापूर्वीच्या साहित्याच्या तौलनिक अभ्यासाची क्षमता विकसित
				• साहित्यकृतींचे साठोत्तरी वाड्मयीन प्रवाहामध्ये वर्गीकरण क्षमता विकसित
				• साहित्यकृतींचे साठोत्तरी वाड्मयीन प्रवाहामध्ये मूल्यमापन करण्याची क्षमता
				• याप्रवाहामध्ये लेखन करण्याचे कौशल्ये व त्याअनुषंगाने रोजगाराच्या संधी उपलब्ध होण्याच्या दृष्टीने क्षमता विकसित होईल.
38.	**MA I 2023 Patt.**	**I**	संशोधन पद्धती – **MAR 541 MN**	▪ संशोधनाचे स्वरूप कळण्यास मदत
				▪ संशोधनाच्या विविध पद्धती समजतील.
				▪ प्रत्यक्ष संशोधन करताना वरील अभ्यासाचा आधार घेता येईल.
				▪ संशोधनाच्या विविध अभ्यास क्षेत्रांची
				▪ संशोधनाचा आराखडा तयार करता येईल. संशोधनास पूरक पुरावे गोळा करता
				▪ संशोधनदृष्टी विकसित होईल तसेच चिकित्सक दृष्टी विकसित होईल.
39.	**MA I 2023 Patt.**	**II**	अर्वाचीन मराठी वाड्मयाचा इतिहास (इ.स. 1920 ते 2010) – **MAR 551 MJ**	▪ इ.स. १९२० ते २०१० या कालखंडातील वाड्मयेतिहासाच्या स्वरूपाचा विद्यार्थ्यांना
				▪ अव्वल इंग्रजी कालखंडातील साहित्याच्या प्रेरणा, प्रवृत्ती, स्वरूपयांचे विवेचन करता
				▪ इ.स. १९२० ते २०१० या कालखंडातील साहित्याचे स्वरूप विशद करता येईल.
				▪ इ.स. १९२० ते २०१० या कालखंडातील साहित्याच्या प्रेरणा प्रवृत्ती यांचे विश्लेषण
				▪ इ.स. १९२० ते २०१० या कालखंडातील साहित्याची कारणमीमांसा करता येईल.

				▪ इ.स. १९२० ते २०१० या कालखंडातील साहित्यानिर्मितीच्या प्रेरणा, प्रवृत्ती लक्षात येऊन विद्यार्थ्यांना साहित्य निर्मिती आणि
40.	**MA I 2023 Patt.**	**II**	समाजभाषा विज्ञान – **MAR 552 MJ**	▪ समाजभाषा विज्ञानाचे स्वरूप व संकल्पना
				▪ समाजभाषा विज्ञानाची व्याप्ती, स्वरूप, सिद्धांत, महत्त्व व मर्यादा विशद करता
				▪ समाजभाषा विज्ञानाच्या ज्ञानातून स्थानिक भाषांचा अभ्यास करता येईल.
				▪ भारतीय भाषांचे समाजभाषाविज्ञानाच्या अध्ययनाच्या दृष्टीकोनातून वर्गीकरण
				▪ स्त्रिया, पुरुष, मुले, युवक व वृद्धाच्या भाषेचे मूल्यमापन करता येईल.
				▪ विविध भारतीय भाषा व बोली भाषावर आधारित प्रकल्प तयार करता येतील.
41.	**MA I 2023 Patt.**	**II**	प्रसारमाध्यमां साठी लेखनकौश ल्ये – **MAR 553 MJ**	▪ प्रसारमाध्यमासाठी लेखन कौशल्याचा
				▪ मराठीचे प्रसारमाध्यमांसाठी लेखन याक्षेत्रातील उपयोजन ज्ञात होईल.
				▪ विविध माध्यामासाठी उपयुक्त लेखन तंत्र अवगत होईल. त्याचे उपयोजन करता
				▪ विविध माध्यामातील आकृतिबंधाचे स्वरूप
				▪ विद्यार्थ्यांना प्रसारमाध्यमांसाठी लेखनया क्षेत्राचा परिचय होईल.
				▪ विद्यार्थी प्रसारमाध्यमांसाठी लेखनकौशल्ये आत्मसात करतील.
42.	**MA I 2023 Patt.**	**II**	प्रसारमाध्यमां साठी लेखन कौशल्ये – **MAR 553 MJP**	▪ प्रसारमाध्यमांसाठी लेखनकौशल्यांचा
				▪ मराठीचे प्रसारमाध्यमांसाठी लेखन या क्षेत्रातील उपयोजन ज्ञात होईल.
				▪ विविध माध्यमांसाठी उपयुक्त लेखनतंत्र अवगत होईल. त्याचे उपयोजन करता
				▪ विविध माध्यमांतील आकृतिबंधाचे
				▪ विद्यार्थ्यांना प्रसारमाध्यमांसाठी लेखन या क्षेत्राचा परिचय होईल.

				▪ विद्यार्थी प्रसारमाध्यमांसाठी लेखनकौशल्ये आत्मसात करतील.
43.	**MA I 2023 Patt.**	**II**	नियतकालिकांचे स्वरूप आणि संपादन – **MAR 554 MJP**	▪ नियतकालिकांचे स्वरूप आणि संपादन यांची माहिती होईल ▪ नियतकालिकांच्या संपादनासाठी ▪ नियतकालिकांचे संपादन करता येईल. ▪ नियतकालिकांच्या संपादनासाठी आवश्यक असलेली कौशल्ये अंगीकारता ▪ नियतकालिकांच्या संपादन प्रक्रियेत आवश्यक कौशल्याचा परिस्थितीनुरूप ▪ नियतकालिकांच्या संपादन प्रक्रियेत नाविन्यपूर्णता आणता येईल.
44.	**MA I 2023 Patt.**	**II**	साहित्य प्रवाहांचा अभ्यास: आदिवासी साहित्य आणि स्त्रीवादी साहित्य – **MAR 560 MJ**	▪ साठोत्तरी वाङ्मयीन प्रवाहाविषयी ज्ञान ▪ साठोत्तरी वाडमयीन प्रवाहांचा उगम आणि विकास स्पष्ट होईल. ▪ साठोत्तरी आणि त्यापूर्वीच्या साहित्याच्या तौलनिक अभ्यासाची क्षमता विकसित ▪ साहित्यकृतींचे साठोत्तरी वाङ्मयीन प्रवाहामध्ये वर्गीकरण क्षमता विकसित ▪ साहित्यकृतींचे साठोत्तरी वाङ्मयीन प्रवाहामध्ये मूल्यमापन करण्याची क्षमता ▪ या प्रवाहामध्ये लेखन करण्याचे कौशल्ये व त्या अनुषंगाने रोजगाराच्या संधी उपलब्ध होण्याच्या दृष्टीने क्षमता विकसित होईल.
45.	**MA I 2023 Patt.**	**II**	साहित्य प्रवाहांचा अभ्यास: आदिवासी साहित्य आणि स्त्रीवादी साहित्य –	▪ साठोत्तरी वाङ्मयीन प्रवाहाविषयी ज्ञान ▪ साठोत्तरी वाङ्मयीन प्रवाहांचा उगम आणि ▪ साठोत्तरी आणि त्यापूर्वीच्या साहित्याच्या तौलनिक अभ्यासाची क्षमता विकसित ▪ साहित्यकृतींचे साठोत्तरी वाङ्मयीन प्रवाहामध्ये वर्गीकरणक्षमता विकसित ▪ साहित्यकृतींचे साठोत्तरी वाङ्मयीन प्रवाहामध्ये मूल्यमापन करण्याची क्षमता

			MAR 560 MJP	▪ याप्रवाहामध्ये लेखन करण्याचे कौशल्ये व त्या अनुषंगाने रोजगाराच्या संधी उपलब्ध होण्याच्या दृष्टीने क्षमता विकसित होईल.
46.	**MA I 2023 Patt.**	**II**	व्यावसायिक प्रशिक्षण – **MAR 560 MJ**	▪ प्रकाशन संस्थेची कार्य प्रक्रिया माहिती ▪ छपाईतंत्र प्रक्रिया माहिती होईल. ▪ बांधणी तंत्राची माहिती होईल. ▪ साहित्य संस्थांचे कार्य प्रत्यक्ष अनुभवता ▪ विविध प्रसारमाध्यामामध्ये रोजगार क्षमता ▪ ग्रंथ विक्रीची माहिती व त्याअनुषंगाने रोजगार क्षमता विकसित होईल.
47.	**MA I 2023 Patt.**	**II**	व्यावसायिक प्रशिक्षण / क्षेत्रभेट – **MAR 560 MJP – OJT**	▪ प्रकाशन संस्थेची कार्य प्रक्रिया माहिती ▪ छपाई तंत्र प्रक्रिया माहिती होईल. ▪ साठोत्तरी आणि त्यापूर्वीच्या साहित्याच्या तौलनिक अभ्यासाची क्षमता विकसित ▪ साहित्यकृतींचे साठोत्तरी वाड्मयीन प्रवाहामध्ये वर्गीकरण क्षमता विकसित ▪ साहित्यकृतींचे साठोत्तरी वाड्मयीन प्रवाहामध्ये मूल्यमापन करण्याची क्षमता ▪ याप्रवाहामध्ये लेखन करण्याचे कौशल्ये व त्याअनुषंगाने रोजगाराच्या संधी उपलब्ध होण्याच्या दृष्टीने क्षमता विकसित होईल
48.	**MA II 2024 Patt.**	**III**	**MAR601MJ मध्ययुगीन कालखंडातील साहित्यकृतींचा अभ्यास [4T]**	▪ मध्ययुगीन साहित्य व साहित्याचे प्रकार सांगता येतील. ▪ मध्ययुगीन साहित्याचे स्वरूप स्पष्ट करता येईल. ▪ मध्ययुगीन साहित्यकृतींचा अभ्यास करता येईल ▪ मध्ययुगीन साहित्याच्या प्रेरणा विशद ▪ मध्ययुगीन साहित्याचा विश्लेषणात्मक ▪ मध्ययुगीन साहित्यकृती आणि लेखकांच्या साहित्यावर आधारित प्रकल्पलेखन

49.	**MA II 2024 Patt.**	**III**	**MAR602MJ साहित्य समीक्षा : संकल्पना, स्वरूप आणि समीक्षापद्धती**	▪ साहित्य समीक्षेचे स्वरूप सांगता येईल. ▪ साहित्य समीक्षेतील विविध सिद्धांत, संकल्पना आणि समीक्षापद्धती आदींच्या परिचयासह त्यांचे महत्त्व व मर्यादा स्पष्ट ▪ सैद्धांतिक समीक्षेतील विविध व्यूहांसह तिची उद्दिष्टे व व्याप्ती ह्या माध्यमातून ▪ साहित्य समीक्षेतील विविध संकल्पना, सिद्धांताच्या आकलनाअंती विविध साहित्यप्रकार-साहित्यकृतींचे ▪ जागतिक व भारतीय समीक्षापद्धती यांचा विश्लेषणात्मक अभ्यास करता येईल. ▪ विविध साहित्यप्रकार, साहित्यकृती आणि लेखकांच्या साहित्यावर सैद्धांतिक सामिक्षेविषयी आधारित प्रकल्प तसेच
50.	**MA II 2024 Patt.**	**III**	**MAR603MJ सौंदर्यशास्त्र [2T]**	▪ सौंदर्यशास्त्राचे स्वरूप सांगता येईल. ▪ सौंदर्यशास्त्रातील विविध सिद्धांत, संकल्पना यांचे महत्त्व व मर्यादा स्पष्ट ▪ सौंदर्यशास्त्रातील विविध व्यूहांसह तिची उद्दिष्टे व व्याप्ती ह्या माध्यमातून ▪ सौंदर्यशास्त्रातील विविध संकल्पना, सिद्धांताच्या आकलनाअंती विविध साहित्यप्रकार-साहित्यकृतींचे ▪ जागतिक व भारतीय सौंदर्यशास्त्राचा ▪ विविध साहित्यप्रकार, साहित्यकृती आणि लेखकांच्या साहित्यावर सौंदर्यशास्त्रावर आधारित प्रकल्प तयार करता येतील.
51.	**MA II 2024 Patt.**	**III**	**MAR604MJP साहित्य समीक्षा आणि**	▪ उपयोजित समीक्षेचे स्वरूप व संकल्पना ▪ साहित्यातील विविध सिद्धांत आणि संकल्पना आदींच्या परिचयासह त्यांचे ▪ उपयोजित समीक्षेची वैशिष्ट्ये, विविध सिद्धांतांच्या आधारे आंतरविद्याशाखीय

			समीक्षापद्धती प्रात्यक्षिक [4P]	▪ उपयोजित समीक्षेचे विविध सिद्धांत आणि संकल्पना यांच्या परस्परसंबंधाच्या आकलनाअंती विविध साहित्यप्रकार-साहित्यकृतींचे अध्ययनाच्या दृष्टीकोनातन
				▪ उपयोजित समीक्षेबद्दल जागतिक व भारतीय साहित्याच्या अभ्यासकांनी
				▪ उपयोजित समीक्षा कशी केली जाते यावर आधारित प्रकल्प तयार करता येईल.
52.	**MA II 2024 Patt.**	**III**	**MAR610MJ E-1 साहित्याचा सामाजिक दृष्टीने अभ्यास [2T]**	▪ सामाजिक संकल्पना स्पष्ट करता येईल.
				▪ साहित्याचे महत्त्व व मर्यादा विशद करता
				▪ सामाजिक दृष्टीकोनातून साहित्याचा अभ्यास करता येईल.
				▪ सामाजिक अध्ययनाच्या दृष्टीकोनातून साहित्याचे वर्गीकरण करता येईल.
				▪ साहित्य व समाज यांचा तौलनिक अभ्यास
				▪ विविध सामाजिक साहित्यकृतींवर आधारित प्रकल्प तयार करता येतील
53.	**MA II 2024 Patt.**	**III**	**MAR611MJPE-1 साहित्याचा सामाजिक दृष्टीने अभ्यास : प्रात्यक्षिक [2P]**	▪ सामाजिक संकल्पना स्पष्ट करता येईल.
				▪ साहित्याचे महत्त्व व मर्यादा विशद करता
				▪ सामाजिक दृष्टीकोनातन साहित्याचा
				▪ सामाजिक अध्ययनाच्या दृष्टीकोनातून साहित्याचे वर्गीकरण करता येईल.
				▪ सामाजिक अध्ययनाच्या दृष्टीकोनातून साहित्याचे वर्गीकरण करता येईल.
				▪ विविध सामाजिक साहित्यकृतींवर आधारित प्रकल्प तयार करता येतील.
54.	**MA II 2024 Patt.**	**III**	**MAR631RP संशोधन प्रकल्प**	▪ संशोधन प्रकल्पाचे स्वरूप, प्रयोजने,
				▪ संशोधन प्रकल्पलेखनाची तंत्रे व साधने
				▪ संशोधन प्रकल्पलेखनात ग्रंथालयांतील साधनांचा वापर करता येईल.
				▪ संशोधन प्रकल्पाचा विषय आणि प्रकल्पलेखनामागील उद्दिष्टे निश्चित
				▪ संशोधन प्रकल्पाच्या विषयानुरूप लेखनशैली, भाषाशैली यांचा वापर करता

				▪ मराठी भाषा, साहित्य आणि संस्कृती याविषयी संशोधन प्रकल्पलेखन करता
55.	**MA II 2024 Patt.**	**IV**	**Major Core MAR651MJ अर्वाचीन कालखंडातील साहित्यकृतींचा अभ्यास [4T]**	▪ अर्वाचीन साहित्य व साहित्याचे प्रकार ▪ अर्वाचीन साहित्याचे स्वरूप स्पष्ट करता येईल ▪ अर्वाचीन साहित्याच्या प्रेरणा विशद करता ▪ अर्वाचीन साहित्याचा विश्लेषणात्मक ▪ अर्वाचीन साहित्यकृती आणि लेखकांच्या साहित्यावर आधारित प्रकल्पलेखन
56.	**MA II 2024 Patt.**	**IV**	**MAR652MJ लोकसाहित्याची मूलतत्त्वे आणि मराठी लोकसाहित्य [4T]**	▪ लोकसाहित्याचे स्वरूप सांगता येईल. ▪ लोकसाहित्याचा विविध घटकांशी असलेला अनुबंध स्पष्ट करता येईल. ▪ मराठी लोकसाहित्याचे अध्ययन करता ▪ मराठी लोकसाहित्याच्या विविध कलाविष्कारांचे वर्गीकरण करता येईल ▪ मराठी लोकसाहित्याच्या कलात्मक सौंदर्याचे मूल्यमापन करता येईल ▪ मराठी लोकसाहित्याच्या संकलनास आणि अभ्यासास प्रोत्साहन मिळेल
57.	**MA II 2024 Patt.**	**IV**	**MAR654MJP सर्जनशील लेखन : स्वरूप आणि प्रकार [4P]**	▪ सर्जनप्रक्रियेचे स्वरूप ज्ञात होईल. ▪ सर्जनप्रक्रियेतील घटकांचा परिचय ▪ साहित्याच्या निर्मितीतील प्रतिभेचे कार्य ▪ साहित्याच्या अभिव्यक्तीपद्धतीनुसार पडणाऱ्या साहित्यप्रकारांचा परिचय ▪ साहित्याच्या अभिव्यक्तीपद्धतीनुसार पडणाऱ्या साहित्यप्रकारांचे अवलोकन ▪ साहित्यलेखनाला प्रोत्साहन मिळेल.
58.	**MA II 2024 Patt.**	**IV**	**MAR660MJ E-1 मध्ययुगीन मराठी वाङ्मयाची**	▪ वाङ्मयाची सांस्कृतिक पार्श्वभूमी सांगता ▪ मध्ययुगीन मराठी वाङ्मयाची सांस्कृतिक पार्श्वभूमी विशद करता येईल. ▪ मध्ययुगीन मराठी वाङ्मयाचा अभ्यास ▪ मध्ययुगीन मराठी वाङ्मयाचे सांस्कृतिक पार्श्वभूमीच्या आधारे विश्लेषण करता

			सांस्कृतिक पार्श्वभूमी [2T]	▪ मध्ययुगीन समाजाच्या सांस्कृतिक पार्श्वभूमीवर वाङ्मयाचे मलयमापन करता ▪ मध्ययुगीन वाङ्मयप्रकारांचे अध्ययन केल्यानंतर त्या वाङ्मयप्रकारांमध्ये
59.	**MA II 2024 Patt.**	**IV**	**MAR661MJPE-1 मध्ययुगीन मराठी वाङ्मयाची सांस्कृतिक पार्श्वभूमी : प्रात्यक्षिक [2P]**	▪ वाङ्मयाची सांस्कृतिक पार्श्वभूमी सांगता ▪ मध्ययुगीन मराठी वाङ्मयाची सांस्कृतिक पार्श्वभूमी विशद करता येईल. ▪ मध्ययुगीन मराठी वाङ्मयाचा अभ्यास करताना या सांस्कृतिक पार्श्वभूमीचा ▪ मध्ययुगीन मराठी वाङ्मयाचे सांस्कृतिक पार्श्वभूमीच्या आधारे विश्लेषण करता ▪ मध्ययुगीन समाजाच्या सांस्कृतिक पार्श्वभूमीवर वाङ्मयाचे मूल्यमापन करता ▪ मध्ययुगीन वाङ्मयप्रकारांचे अध्ययन केल्यानंतर त्या वाङ्मयप्रकारांमध्ये
60.	**MA II 2024 Patt.**	**IV**	**MAR681RP संशोधन प्रकल्प**	▪ संशोधन प्रकल्पाचे स्वरूप, प्रयोजने, आवश्यकता सांगता येतील. ▪ संशोधन प्रकल्पलेखनाची तंत्रे व साधने ▪ संशोधन प्रकल्पलेखनात ग्रंथालयांतील साधनांचा वापर करता येईल. ▪ संशोधन प्रकल्पाचा विषय आणि प्रकल्पलेखनामागील उद्दिष्टे निश्चित ▪ संशोधन प्रकल्पाच्या विषयानुरूप लेखनशैली भाषाशैली यांचा वापर करता ▪ मराठी भाषा, साहित्य आणि संस्कृती याविषयी संशोधन प्रकल्पलेखन करता

2)DEPARTMENT OF HINDI

PROGRAM OUTCOME(PO)
(2024Pattern)

PO -01	हिंदी भाषा और साहित्य के बुनियादि तत्व समझ पाएंगे .
PO-02	अनुसंधान कार्य के लिये आवश्यक गुणो का विकास होगा.

PO-03	संवाद कौशल्य :श्रवण,भाषण, वाचन,तथा लेखन कुश कौशल्य से अवगत होंगे.
PO-04	:प्राप्तज्ञानकावैज्ञानिकदुष्टीसेपरीक्षणअथवाप्रस्तुतीकरणकरनासिखेंगे.
PO-05	सांस्कृतिकवैविध्यसमझनेकीक्षमताविकसितहोगी.

(2019Pattern)

PO -01	आंतरविद्याशाखीयज्ञान :हिंदी भाषा और साहित्य के बुनियादी तत्व समझ पायेंगे .
PO-02	अनुसंधान कौशल्य: अनुसंधान कार्य के लिये आवश्यक गुणो का विकास होगा.
PO-03	संवाद कौशल्य :श्रवण,भाषण, वाचन,तथा लेखन कुश कौशल्य से अवगत होंगे.
PO-04	समीक्षात्मकदृष्टिकोन: प्राप्तज्ञानकावैज्ञानिकदुष्टीसेपरीक्षणअथवाप्रस्तुतीकरणकरनासिखेंगे.
PO-05	सांस्कृतिकवैविध्यसमझनेकीक्षमताविकसितहोगी.

PROGRAM SPECIFIC OUTCOME(PSO)
(2024Pattern)

PSO - 01	हिंदी साहित्य अथवा पाठ्यक्रम संबंधित विषयक विविध अवधारणा समजेंगे तथा उसका सौंदर्यशाश्रीय आकलन होगा .
PSO-02	भाषिक कौशल आत्मसात होंगे और तंत्रज्ञान का भाषिक व्यवव्हार में कुशलता पूर्वक प्रयोग कर सकेंगे .
PSO-03	हिंदी भाषा और साहित्य सम्बन्धी अनुसंधान कार्य हेतु प्रेरणा मिलेगी .
PSO-04	सामाजिकजिम्मेदारीयोकाएहसासहोगा
PSO-05	व्यक्तित्व विकास में सहायता होगी.

PROGRAM OUTCOME(CO)
(2024Pattern)

S. N.	Class	Sem	Subject With Code	COURSE OUTCOME

1	**FY BA 2024 Pattern**	**I**	**HIN-101-T**	• हिंदीकविताऔरकहानीसाहित्यकेइतिहासअवगतहोंगे. • दृकश्राव्यमाध्यमसेसाहित्यकाआस्वादनकरेंगे. • विविधजीवनमुल्योसेपरिचितहोंगे. • असफलहोनेपरभीसंघर्षकरनेकीप्रेरणामिलेगी.
		I	**HIN-102-P**	• छात्ररचनाप्रक्रियाएवंरचनाकर्मकेअंतरकोसमझेंगे. • कविताकेतत्वोसेपरिचितहोंगे. • कहानीकेतत्वोसेअवगतहोंगे. • रचनाकायथार्थस्वरूपसमजकरउसेरचनाबद्ध करसकेंगे.
2		**II**	**HIN-201-T**	• हिंदीसाहित्यिकविभिन्नविधाओकेइतिहाससेअवगतहोंगे. • हिंदीसाहित्यकेमाध्यमसेसंवादलेखनलिखेंगे. • विविधसामाजिकराजनीतिकपरिस्थितीसेअवगतहोंगे.
		II	**HIN--202-P**	• सामाजिकजिम्मेदारीयोकाएहसासहोगा. • छात्ररचनाप्रक्रियाएवंरचनाकर्मकेअंतरकोसमझेंगे. • कविताकेतत्वोसेपरिचितहोंगे.
3		**I**		• व्यंगसाहित्यकेतत्वोसेअवगतहोगे. • कल्पनाशक्तीकेद्वारासृजनकरसकेंगे.
		II	**OE-103-HIN-T**	• हिंदीकविताऔरकहानीसाहित्यकेइतिहास से अवगतहोंगे. • दृकश्राव्यमाध्यमसेसाहित्यकाआस्वादनकरेंगे. • सामाजिकजिम्मेदारीयोकाअहसासहोगा. • मानवीयजीवनविकासहेतूवैज्ञानिकदृष्टीविकसितहोगी.
4		**I**	**OE-203-HIN-P**	• छात्रोकोहिंदीभाषाकीव्यवहारिकउपयोगिता मालूमहोगी. • छात्रसूत्रसंचालनकरणेमेसक्षमबनेंगे .

	FY BA 2024 Pattern	**II**	**SEC-104-HIN-T**	• छात्रसाक्षात्कारकौशलकाउपयोगकरसाक्षात्कारलेंगे. • छात्रपत्रलेखनकेमहत्वऔरउनकीउपयोगिताकोसमझपायेंगे
5		**I**	**SEC-204-HIN-P**	• छात्रभाषाकौशलकेआधारसमझेंगे. • भाषाईकौशलविकसितकररोजगारप्राप्तकरेंगे. • मातृभाषावरअन्यभाषाओकेअंतरकोसमझेंगे. • भाषाकौशलकेराष्ट्रीय, सामाजिक, एवंशैक्षिकसंदर्भसेअवगतहोंगे.
6		**II**	**G-2-23093-HIN**	• छात्रकम्प्युटरकेविविधअंगोसेपरिचितहोंगे. • भारतीयभाषाओकेप्रचारप्रसारहेतूकम्प्युटरकेमहत्त्वकोसमझेंगे. • कम्प्युटरकेमाध्यमसेदेवनागरीलिपीकाप्रयोगसीखेंगे. • युनीकोडकेसॉफ्टवेअरसेअवगतहोंगे.
		III	**G-2-24093-HIN**	• हिंदी कहानी के तत्वों का अध्ययन. • हिंदी काव्य के माध्यम से विभिन्न विषयों से परिचित करना. • हिंदी उपन्यास साहित्य का परिचय देते हुए उपन्यास के तत्वों को समझाना. • साहित्येतर पाठ्यक्रम द्वारा छात्रो में व्यावहारिक क्षमता अथवा कौशल्य की जानकारी देना.
		IV	**(S-1) 23091**	• हिंदी भाषा तथा व्यक्तिमत्व विकास से छात्रों को अवगत कराना. • भाषा के ऐतिहासिक विकासक्रम को समझना. • कहानी तथा नाटको की लेखन शैली को विकसित करना.
7	SY **BA 2119 Pattern**	**III**	**(S-1) 23092**	• साहित्येतर पाठ्यक्रम द्वारा छात्रो में व्यावहारिक क्षमता अथवा कौशल्य की जानकारी देना • काव्यशास्त्र का सामान्य परिचय. • काव्य की परिभाषा,स्वरूप को समझना.

		IV	**(S-2)23092**	• काव्य के तत्त्व एवं शब्दशक्ति का अभ्यास. • रस सिद्धांत-परिभाषा,स्वरूप.
8		**III**	**(S-2)24092**	• साहित्य एवं समाज का अंत: सम्बन्ध से छात्रों को अवगत करना. • हिंदी कविता,गज़ल,आदि को छात्रो से अवगत कराना . • हिंदी के प्रमुख रचनाकारों की साहित्य कृति की जानकारी देकर जीवन मूल्यों से अवगत करना. • हिंदी भाषा में रोजगार की दृष्टि से छात्रो में जागरूकता निर्माण करना.
9	SY **BA 2019 Pattern**	**IV**	**(MIL)24012**	• मध्ययुगीनगद्य-पद्यसाहित्य का परिचय. • हिंदी के मध्ययुगीन साहित्यकारों का परिचय देना. • मध्यकाल के प्रमुख संतों का परिचय देते हुए उनके जीवन काल से अवगत कराना. • कबीर,सूरदास,मीराबाई,बिहारी आदि के साहित्य का अध्ययन
		V	**23012**	• मध्ययुगीन हिंदी साहित्य का परिचय देना. • हिंदी के मध्ययुगीन साहित्यकारों का परिचय देना. • मध्यकाल के प्रमुख संतों का परिचय देते हुए उनके जीवन काल से अवगत कराना. • कबीर,सूरदास,मीराबाई,बिहारी आदि के साहित्य का अध्ययन.
10		**V**	**(G-3)35093**	
		VI	**36093**	• भाषाएवं व्यवहार के कौशल्य को समझाना. • भाषिक कौशल्य के माध्यम से बोलने की क्षमता को विकसित करना. • लघुकथा का परिचय देना.

			(S-3) 35091	• प्रमुख लघुकथा एवं गीत लेखन के लिए छात्रों को प्रेरित करना.
11		**V**		
				• हिंदी वर्णमाला का परिचय. • लिपि का परिचय एवं देवनागरी लिपि की विशेषताएँ.
			36091	
		VI		• वर्णों का उचारण एवं वर्गीकरण की प्रक्रिया को समझना. • लघुकथा द्वारा श्रवण,संवाद,वाचन,लेखन आदि कौशल को समझना
			(S-4)	
12		**V**	**35092**	
			36092	
		VI		• छात्रों को संस्मरण साहित्य से अवगत कराना. • छात्रों को रेखाचित्र साहित्य से अवगत कराना. • छात्रों में सभा,इतिवृत्त,लेखन कौशल्य वृद्धी का विकास करना.
	TYBA 2019 Pattern		**(SEC)35096**	• छात्रों में वार्ता-लेखन कौशल्य दृष्टि निर्माण करना. • छात्रों को ग़ज़ल साहित्य से अवगत कराना • प्रमुख गज़लकारो के व्यक्तित्व से अवगत कराना . • छात्रों में मूल्याङ्कन की दृष्टि से विकास करना.
			36096 (SEC)	• छात्रों को सरकारी पत्रलेखन से अवगत कराना .
				• साहित्य का काल विभाजन एवं नामकरण की प्रक्रिया. • आदिकाल,भक्तिकाल,रीतिकाल की प्रवृत्तियों का परिचय. • संत काव्य परंपरा का अनुसरण. • रीतिकाल की प्रमुख कवियों का सामान्य परिचय.

	TYBA 2019 Pattern			• आधुनिक काल की सामान्य पृष्टभूमि का अध्ययन. • द्विवेदीयुगीन काव्यधारा का सामान्य परिचय. • छायावादी काव्य की विशेषताएँ . • आधुनिक काल के प्रमुख साहित्यकार • भाषा का स्वरूप, कार्यएवं विशेषता का अध्ययन. • ध्वनि विज्ञानं,अर्थ विज्ञानं का अर्थ,स्वरूप एवं कार्य. • वागिइंद्रिय की रचना, कार्यएवं स्वननिर्मिती की प्रक्रियाका अध्ययन. • भाषा अध्ययन की आवश्यकता को स्पष्ट करना. • भाषा की परिभाषाएँ एवं विशेषताएँ. • हिंदी की बोलियों का सामान्य परिचय. • नगरीलिपि का उदभव और विकास. • नगरी लिपि की विशेषताएँ एवं सुधर की संभावनाएँ. • पटकथा लेखन का स्वरूप एवं प्रक्रिया का अध्ययन. • फीचर के प्रकार एवं महत्त्व. • पटकथा लेखन की पद्धति,पटकथा का स्वरूप . • ड्राफ्ट लेखन की प्रक्रिया,स्क्रिप्ट लेखन की प्रकिया को समझना. • हिंदी फीचर एवं ब्लॉग लेखन का अध्ययन. • हिंदी साहित्य का फिल्मंतरण. • 21 वी सदी में हिंदी सिनेमा का ऐतिहासिक स्वरूप. • हिंदी कहानियो पर आधारित हिंदी फिल्में

SN	Class	Sem	Subject With Code	COURSE OUTCOME
1.	F.Y.B.A	I	11092(IA)	• साहित्य एवं सामाजिक गतिविधियों के माध्यम से छात्रो की बौद्धिक क्षमता को विकसित करना। • हिंदी कथा साहित्य का अध्ययन करना। • व्यक्तिमत्व विकास की दृष्टि से भाषा साहित्य का अध्ययन करना। • वैश्वीकरण के दौर में विभिन्न क्षेत्रो में अपनी क्षमता को वृधिन्गत करने की दृष्टि से भाषा शास्त्र का अध्ययन करना। • हिंदी कहानी साहित्य के माध्यम से लेखन कार्य के लिए छात्रो को प्रेरित करना। • साहित्य की कतिपय विधाओं की जानकारी देते हुए जीवन मूल्यों को समझाना। • हिंदी साहित्य के प्रमुख साहित्यकारों की जानकारी देते हुए उनके व्यक्तित्व से छात्रो को प्रेरित करना। • भाषिक कौशल्य का विकास करना । • हिंदी कहानी के तत्वों का अध्ययन।
2	F.Y.B.A	II	12092(IA)	
3	S.Y.B.A (G-2)		23093	
4	S.Y.B.A (S-1)		23091	

5	**S.Y.B.A (S-2)**		**23092**	• हिंदी काव्य के माध्यम से विभिन्न विषयों से परिचित करना • हिंदी उपन्यास साहित्य का परिचय देते हुए उपन्यास के तत्वों को समझाना।.
6	**S.Y.B.A (SEC)**		**23093**	• काव्यशास्त्र का सामान्य परिचय • काव्य की परिभाषा,स्वरूप को समझना • काव्य के तत्त्व एवं शब्दशक्ति का अभ्यास
7	**T.Y.B.A (G-3)**		**35093**	• रस सिद्धांत-परिभाषा,स्वरूप • मध्ययुगीन हिंदी साहित्य का परिचय देना।
8	**T.Y.B.A (S-3)**		**35091**	• मध्यकाल के प्रमुख संतों का परिचय देते हुए उनके जीवन काल से अवगत कराना। • कबीर,सूरदास,मीराबाई,बिहारी आदि के साहित्य का अध्ययन।
9			**35092**	• अनुवाद का अर्थ,स्वरूप एवं प्रक्रिया को समझाना। • अनुवाद की प्रक्रिया को समझाना।

10	**T.Y.B.A (S-4)** **T.Y.B.A** **(SEC)**		**35096**	• अनुवाद कार्य के लिए छात्रों को प्रेरित करना। • माध्यम लेखन के स्वरूप को समझाना। • छात्रों को संस्मरण साहित्य से अवगत कराना। • छात्रों को रेखाचित्र साहित्य से अवगत कराना। • छात्रों में वार्ता-लेखन कौशल्य दृष्टि निर्माण करना। • साहित्य का काल विभाजन एवं नामकरण की प्रक्रिया। • आदिकाल,भक्तिकाल,रीतिकाल की प्रवृत्तियों का परिचय। • संत काव्य परंपरा का अनुसरण। • आधुनिक काल की सामान्य पृष्टभूमि का अध्ययन। • भाषा की परिभाषाएँ एवं विशेषताएँ। • हिंदी की बोलियों का सामान्य परिचय।

				• नगरीलिपि का उदभव और विकास। • नगरी लिपि की विशेषताएँ एवं सुधर की संभावनाएँ। • पटकथा लेखन का स्वरूप एवं प्रक्रिया का अध्ययन। • फीचर के प्रकार एवं महत्त्व। • पटकथा लेखन की पद्धति,पटकथा का स्वरूप । • ड्राफ्ट लेखन की प्रक्रिया,स्क्रिप्ट लेखन की प्रकिया को समझना। • हिंदी फीचर एवं ब्लॉग लेखन का अध्ययन .

3)DEPARTMENT OF ENGLISH

(2024Pattern)

PO -01	Students will be able to learn the basics of English language.
PO-02	It will help develop linguistic skills in students.
PO-03	Skill sets in the course will make students confident and employable.
PO-04	Students will become proficient in interactions, conversations and professional dialogues.
PO-05	Students will be introduced to complementary disciplines.
PO-06	Students will get exposure to practical/real life situations.
PO-07	It will help to enhance their awareness about shared national heritage.
PO-08	Students studying pieces of literature will develop more humane and broad approach towards others.
PO-09	Exposure to skills and values that are important in the present contexts will develop confidence in students.
PO-10	It will help develop sense of responsibility and commitment to excellence in students.

(2019Pattern)

PO -01	Realization of human values
PO-02	Sense of social service
PO-03	Responsible and dutiful citizen
PO-04	Critical temper
PO-05	Creativity ability

(2024Pattern)

PSO -01	**Communication Skills:** Students will be able to understand and explain their experiences and events around them.
PSO-02	**Research Aptitude:** Students will develop basic linguistic skills necessary for research.
PSO-03	**Analytical Skills:** Students will learn to evaluate and assess the authenticity and credibility of source materials.
PSO-04	**Professional Development:** Students will have career opportunities in many corporate and public organizations.
PSO-05	**Critical Thinking:** Students will learn the importance of raising questions and finding answers.
PSO-06	**Human Values and ethics:** Students will understand the importance human values.
PSO-07	**Problem Solving:** Students will learn to accept challenges, assess the complexities and find solutions.
PSO-08	**Policy Analysis:** Students will learn post facto implications and consequences of policies.
PSO-09	**Disciplinary knowledge:** Students will know the basics of English language, its building blocks like vocabulary, reading, writing, comprehension.
PSO-10	**Linguistic Abilities**- Students will learn to appreciate the linguistic skills and use them for their benefit and for the benefit of the society.

(2019Pattern)

PSO -01	Students do communicate in English language fluently and more confidently
PSO-02	Students exhibit the knowledge and understanding of English language and literature and the prescribed texts in English.
PSO-03	Students do understand literary texts in English in different genres.
PSO-04	Students comprehend, interpret and apply critical theories and texts in English.
PSO-05	Students comprehend the phonology, morphology, syntax, semantics and pragmatics of English language

COURSE OUTCOME

(2024 Pattern)

SN	Class	Sem	Subject with Code	COURSE OUTCOME
1	**F.Y.B.A.**	**I**	English for Beginners ENG 101 T	• Students learn the basics of English language • Students become confident and proficient in the use of English in real life situations
2	**F.Y.B.A.**	**II**	English for Beginners ENG 151 TP	• Students relies the beauties of literature as linguistic construction and learn less and values of life • Students acquire necessary skills that make them competent and employable • Students learn the significance of human values
3	**F.Y.B.A.**	**I**	Soft Skills through English- I SEC 101 ENG	• Students are introduced to the significance and basics of soft skills • Students acquire soft skills necessary in real life situations
4	**F.Y.B.A.**	**II**	Soft Skills through English- II SEC 151 ENG	• Students know the theory of soft skills and their practical importance through exercise • Students learn many different soft skills • Students become confident and competent through soft skills
5	**F.Y.B.A.**	**I**	Developing Communicative Competence in English – I AEC 101 ENG	• Students understand the importance of communication and the consequent competence required for it. • Students learn the basics of communication • Students acquire the necessary skills components of communication

6	**F.Y.B.A.**	**II**	Developing Communicative Competence in English – II AEC 151 ENG	• Students become confident about communication through rigorous exercise • Students become competent in communication • Students realize that literary pieces are very good examples of effective communication.
7	**F.Y.B.COM.**	I	English-I AEC-101	• Students understand the importance of communication and the consequent competence required for it. • Students learn the basics of communication • Students acquire the necessary skills components of communication
8	**F.Y.B.COM.**	II	English-II AEC-121	• .Students become confident about communication through rigorous exercise • Students become competent in communication • Students realize that literary pieces are very good examples of effective communication.
9	**F.Y.B.COM/ B.SC.**	**I**	Mass Communication through English – I OE 101 ENG	• Students get enough exposure to the basics of mass communication • Students become familiar with the importance of mass communication in the present global contexts
10	**F.Y.B.COM/ B.SC**	**II**	Mass Communication through English – II OE 151 ENG	• Students acquire necessary skill sets of mass communication • Students becomes familiar with and capable of good mass communication
11	**F.Y.B.SC.**	**I**	English-I AEC-101	• Read and understand texts in English • Enrich and use vocabulary effectively • Understand and Develop Communicative Competence

12	**F.Y.B.SC.**	**II**	English-II AEC-151	• Use body language in different situations • Acquaint with digital platforms and technology Write letter, notice, agenda, minutes and blog
13	**F.Y.B.SC.** **(Computer Science)**	**I**	English-I AEC-101	• Read and understand texts in English • Enrich and use vocabulary effectively Understand and Develop Communicative Competence
14	**F.Y.B.SC.** **(Computer Science)**	**II**	English-II AEC-151	• Use body language in different situations • Acquaint with digital platforms and technology Write letter, notice, agenda, minutes and blog

(2019 Pattern)

SN	Class	Sem	Subject with Code	COURSE OUTCOME
1	F.Y.B.A.	**I**	Compulsory English 11001	After studying the paper successfully, the learners will be able to- • CO1. expose to the best examples of prose and poetry in English so that they realize the beauty and communicative power of English. • CO2. realize the beauty and communicative power of English by learning the prescribed prose and poetry. • CO3. instill human values. • CO4. Develop the character building. • C04. prepare to be responsible citizens of the world.
2	F.Y.B.A.	**II**	Compulsory English 12001	• After studying the paper successfully, the learners will be able to- • CO1. Develop the abilities to appreciate ideas and think critically. • CO2. enhance employability by developing linguistic competence and communicative skills.

				• CO3. Revise and reinforce the structures already learnt in the previous stages of learning. • CO4. acquire the skills of understanding and using English language correctly by learning grammar. • CO4. communicate in English in different situations.
3	F.Y.B.A.	**I**	Optional English 11331	• After studying the paper successfully, the learners will be able to- • CO1. expose to the basics of literature and language. • CO2. expose to develop an integrated view about language and literature in them. • CO3. acquaint with minor forms of literature in English especially short stories, essay and poetry. • CO4. appreciate the creative use of language in literature.
4	F.Y.B.A.	II	Optional English 12331	• CO1. learn the basics of phonology of English. • CO2. do the English pronunciation and speak English correctly. • CO3. prepare for the detailed study and understanding of literature and language. • CO4. Enhance the job potential by improving their language skills.
5	S.Y.B.A.	III	Compulsory English 23001	• After studying the paper successfully, the learners will be able to- • CO1. expose to the best examples of literature in English and to contribute to their emotional quotient as well as independent thinking. • CO2. instill universal human values through best pieces of literature in English. • CO3. Develop effective communication skills by developing ability to use right words in the right context. • CO4. Enhance the employability of the students. • CO5. revise and reinforce the learning of some important areas of grammar for better linguistic competence.
6	S.Y.B.A.	IV	Compulsory English	• CO1. expose to the best examples of literature in English and to contribute to

			24001	their emotional quotient as well as independent thinking. • CO2. instill universal human values through best pieces of literature in English. • CO3. Develop effective communication skills by developing ability to use right words in the right context. • CO4. enhance the employability of the students. • CO5. revise and reinforce the learning of some important areas of grammar for better linguistic competence.
7	S.Y.B.A.	III	Skill Enhancement Course-SEC-1A Old General English (G-2) 23333	• After studying the paper successfully, the learners will be able to- • CO1. familiarize with the various components of language. • CO2. develop overall linguistic competence of the students. • CO3. introduce to some advanced areas of language study. • • CO4. prepare to go for detailed study and understanding of language.
8	S.Y.B.A.	IV	Skill Enhancement Course-SEC-1A Old General English (G-2) 24333	• After studying the paper successfully, the learners will be able to- • CO1. familiarize with the various components of language. • CO2. develop overall linguistic competence of the students. • CO3. introduce to some advanced areas of language study. • CO4. prepare to go for detailed study and understanding of language. •
9	S.Y.B.A.	III	Discipline Specific Course (DSC-1A) (Old Special Paper-I) Appreciating Drama 23331	• After studying the paper successfully, the learners will be able to- • CO1. Introduce to Drama as a major form of literature. • CO2. introduce minor forms of Drama. • CO3. acquaint and enlighten regarding the literary and the performing dimensions of drama. • CO4. acquaint and familiarize with the elements and the types of Drama. • CO5. encourage to make a detailed study of a few sample masterpieces of

				English Drama from different parts of the world.
10	S.Y.B.A.	IV	Discipline Specific Course (DSC-1A) (Old Special Paper-I) Appreciating Drama 24331	• After studying the paper successfully, the learners will be able to- • CO1. encourage to make a detailed study of a few sample masterpieces of English Drama from different parts of the world. • CO2. Develop interest to appreciate and analyze drama independently. • CO3. enhance awareness regarding aesthetics of Drama and to empower them to evaluate drama independently.
11	S.Y.B.A.	III	Discipline Specific Course (DSC-2A) (Old Special Paper-II) Appreciating Poetry 23332	• After studying the paper successfully, the learners will be able to- • CO1. acquaint with the terminology in poetry criticism (i.e. the terms used in appreciation and critical analysis of poems). • CO2. encourage to make a detailed study of a few sample masterpieces of English poetry. • CO3. enhance awareness in the aesthetics of poetry and to empower them to read, appreciate and critically evaluate poetry independently.
12	S.Y.B.A.	IV	Discipline Specific Course (DSC-2A) (Old Special Paper-II) Appreciating Poetry 24332	• After studying the paper successfully, the learners will be able to- • CO1. acquaint with the terminology in poetry criticism (i.e. the terms used in appreciation and critical analysis of poems). • CO2. encourage to make a detailed study of a few sample masterpieces of English poetry. • CO3. enhance awareness in the aesthetics of poetry and to empower them to read, appreciate and critically evaluate poetry independently.
13	S.Y.B.A.	III	Skill Enhancement Course- (SEC-2A & 2B)	• After studying the paper successfully, the learners will be able to- • CO1. enhance the skill of using English for everyday communication • CO2. acquaint with the verbal and nonverbal communication.

			"A Certificate Course in Skill Development" 23334	• CO3. create opportunities to access exposure of speaking in various contexts. • CO4. acquaint and familiarize with soft skills. • CO5. develop interest among the students to interact in English.
14	S.Y.B.A.	IV	Skill Enhancement Course- (SEC-2A & 2B) "A Certificate Course in Skill Development" 24333	• After studying the paper successfully, the learners will be able to- • CO1. enhance the skill of using English for everyday communication. • CO2. acquaint with the verbal and nonverbal communication. • CO3. create opportunities to access exposure of speaking in various contexts. • CO4. acquaint and familiarize with soft skills. • CO5. develop interest among the students to interact in English.
15	T.Y.B.A.	V	Compulsory English 35001	• After studying the paper successfully, the learners will be able to- • CO1. familiarize with some excellent pieces of prose and poetry in English so that they realize the beauty and communicative power of English. • CO2. become competent and effective users of English in real life situations. • CO3. contribute to the overall personality development. • CO4. instill humanitarian values and foster sympathetic attitude. • CO5. train in practical writing skills required in work environment. • CO6. enhance employability through Imparted knowledge of some essential soft skills.
16	T.Y.B.A.	VI	Compulsory English 36001	• After studying the paper successfully, the learners will be able to- • CO1. familiarize with some excellent pieces of prose and poetry in English so that they realize the beauty and communicative power of English. • CO2. become competent and effective users of English in real life situations. • CO3. contribute to the overall personality development.

				• CO4. instill humanitarian values and foster sympathetic attitude. • CO5. train in practical writing skills required in work environment. • CO6. enhance employability through Imparted knowledge of some essential soft skills.
17	T.Y.B.A.	V	Skill Enhancement Course (SEC 1-C & SEC 1-D) (Old G-3) Enhancing Employability Skills 35333	• After studying the paper successfully, the learners will be able: • CO1. be aware of career opportunities available to them. • CO2. identify the career opportunities suitable to them. • CO3. understand the use of English in different careers. • CO4. develop competence in using English for the career of their choice. • CO5. enhance skills required for their placement. • CO6. use English effectively in the career of their choice. • CO7. exercise verbal as well as nonverbal communication effectively for their career.
18	T.Y.B.A.	VI	Skill Enhancement Course (SEC 1-C & SEC 1-D) (Old G-3) Enhancing Employability Skills 36333	• After studying the paper successfully, the learners will be able: • CO1. be aware of career opportunities available to them. • CO2. identify the career opportunities suitable to them. • CO3. understand the use of English in different careers. • CO4. develop competence in using English for the career of their choice. • CO5. enhance skills required for their placement. • CO6. use English effectively in the career of their choice. • CO7. exercise verbal as well as nonverbal communication effectively for their career.
19	T.Y.B.A.	V	Discipline Specific Elective (DSE-1C&DSE-1D) (Old S-3)	• After studying the paper successfully, the learners will be able to: • CO1. introduce to the basics of novel as a literary form. • CO2. expose to the historical development and nature of novel.

			Appreciating Novel 35331	• CO3. be aware of different types and aspects of novel. • CO4. develop literary sensibility and sense of cultural diversity in students. • CO5. expose to some of the best examples of novel.
20	T.Y.B.A.	VI	Discipline Specific Elective (DSE-1C& DSE-1D) (Old S-3) Appreciating Novel 36331	• After studying the paper successfully, the learners will be able to: • CO1. introduce to the basics of novel as a literary form. • CO2. expose to the historical development and nature of novel. • CO3. be aware of different types and aspects of novel. • CO4. develop literary sensibility and sense of cultural diversity in students. • CO5. expose to some of the best examples of novel.
21	T.Y.B.A.	V	Discipline Specific Elective (DSE-2C & DSE-2D) (Old S-4) Introduction to Literary Criticism 35332	• After studying the paper successfully, the learners will be able to: • CO1. introduce to the basics of literary criticism. • CO2. become aware of the nature and historical development of criticism. • CO3. become familiar with the significant critical approaches and terms. • CO4. interpret literary works in the light of the critical approaches. • CO5. develop aptitude for critical analysis.
22	T.Y.B.A.	VI	Discipline Specific Elective (DSE-2C & DSE-2D) (Old S-4) Introduction to Literary Criticism 36332	• After studying the paper successfully, the learners will be able to: • CO1. introduce to the basics of literary criticism. • CO2. become aware of the nature and historical development of criticism. • CO3. become familiar with the significant critical approaches and terms. • CO4. interpret literary works in the light of the critical approaches. • CO5. develop aptitude for critical analysis.
23	T.Y.B.A.	V	Skill Enhancement	• After studying the paper successfully, the learners will be able:

			Course (SEC 2-C & SEC 2-D) Mastering Life Skills and Life Values 35334	• CO1. equip with the social skills. • CO2. train the students interpersonal skills. • CO3. build self-confidence and communicate effectively. • CO4. encourage the students to think critically. • CO5. learn stress management and positive thinking. • CO6. enhance leadership qualities. • CO7. become aware about universal human values. • CO8. develop overall personality.
24	T.Y.B.A.	VI	Skill Enhancement Course (SEC 2-C & SEC 2-D) Mastering Life Skills and Life Values 36334	• After studying the paper successfully, the learners will be able: • CO1. equip with the social skills. • CO2. train the students interpersonal skills. • CO3. build self-confidence and communicate effectively. • CO4. encourage the students to think critically. • CO5. learn stress management and positive thinking. • CO6. enhance leadership qualities. • CO7. become aware about universal human values. • CO8. develop overall personality.
25	S.Y.B.Sc. (Regular)	III	English AECC-I 23321	• After studying the paper successfully, the learners will be able: • CO1. Use English in Multimedia • CO2. Apply Language Skills in Multivalent Contexts • CO3. Enhance Speaking Skills in Different Contexts
24	S.Y.B.Sc. (Regular)	IV	English AECC-II 24321	• After studying the paper successfully, the learners will be able: • CO1. Develop Advanced Writing Skills • CO2. Cultivate Soft Skills • CO3. Bridge the Communication Skills Gap • CO4. Analyze and Appreciate Literature
25	S.Y.B.Sc.	III	English AECC-I	• After studying the paper successfully, the learners will be able:

	(Computer Science)		23922	• CO1. Use English in Multimedia • CO2. Apply Language Skills in Multivalent Contexts • CO3. Enhance Speaking Skills in Different Contexts
26	S.Y.B.Sc. (Computer Science)	IV	English AECC-II 24922	• After studying the paper successfully, the learners will be able: • CO1. Develop Advanced Writing Skills • CO2. Cultivate Soft Skills • CO3. Bridge the Communication Skills Gap • CO4. Analyze and Appreciate Literature
27	F.Y.B.Com.	I	Compulsory English 111	• After studying the paper successfully, the learners will be able: • CO1. Understand the Beauty and Practical use of English • CO2. Engage with Contemporary Socio-Economic and Cultural Topics
28	F.Y.B.Com.	II	Compulsory English 121	• After studying the paper successfully, the learners will be able: • CO1. Enhance Oral and Written Communication for Employability • CO2. Develop Linguistic and Communicative Competence

4)DEPARTMENT OF ECONOMICS

B.A. (2024Pattern)

PO-01	To develop a strong foundation of advanced economic theory aligned with the graduation and honors program.
PO-02	To help the students to gain the comprehensive understanding of policy making at various government levels such as, local, state, national and international.
PO-03	To help the students in understanding the intricacies of policy making process from local to global level.
PO-04	To build the foundations of Economics and its inter and multidisciplinary relationship with respect to pure and other social sciences

(2019Pattern)

PO-01	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.
PO-02	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.
PO-03	Social Interaction: Elicit views of others, mediate disagreements and help reach conclusions in group settings.
PO-04	Effective Citizenship: Demonstrate empathetic social concern and equity centered national development, and the ability to act with an informed awareness of issues and participate in civic life through volunteering.
PO-05	Ethics: Recognize different value systems including your own, understand the moral dimensions of your decisions, and accept responsibility for them.
PO-06	Environment and Sustainability: Understand the issues of environmental contexts and sustainable development.
PO-07	Self-directed and Life-long Learning: Acquire the ability to engage in independent and life-long learning in the broadest context socio-technological changes.
PO-08	Ability to apply the concepts of micro economics such as demand, supply, revenue, cost, elasticity, etc.

M. A. (2019 Pattern)

PO-1	Ability to compare and contrast various market structures and understand concept of equilibrium and price determination.
PO-2	At the end of the course, the student should be able to evaluate microeconomic concepts, models and its use in real life situations.
PO-3	Ability to understand, apply and analyze concepts-public debt, budget, fiscal policy in public economics.
PO-4	Ability to interpret the theories relating to public economics in real life situations.
PO-5	Ability to discuss and debate on the public finance and policies.
PO-6	Ability to understand and interpret the concepts such as Balance of Payments, Exchange Rates, Foreign Exchange transactions, International capital flows, etc.
PO-07	Ability to critically analyze the effects of deficits, exchange risk, role of foreign capital on the world economy/trade.

PO-08	Ability to discuss and debate on subjects related to international trade and finances the Indian Economy.
PO-09	Ability to analyze and evaluate the subject with reference to various aspects of Labour economics.
PO-10	Ability to develop an understanding of the labour with its intricacies and imperfections and to be able to construct intellectual dialogue on the challenges of labour. the Indian Economy.

M.A. Economics (NEP-2023)

PO-1	Ability to understand the concepts of international economics such as comparative cost, terms of trade, trade policies and trade agreements
PO-2	Ability to interpret and apply theory relating to understand international trade
PO-3	Ability to discuss and debate the effects of trade policy, trade agreements, exchange rate policies on the world economy/trade
PO-4	Ability to analyze and evaluate the subject with reference to various aspects of agrarian economies.
PO-5	Ability to develop an understanding of agriculture with its intricacies and imperfections and to be able to construct intellectual dialogue on the challenges of agriculture

B.A. (2024Pattern)

PSO-01	Knowledge of Economic Theories: Graduates of a B.A. in Economics will possess a strong understanding of economic theories, including microeconomics, macroeconomics and other specialized areas of economics.
PSO-02	Analytical Skills: Graduates will be able to apply economic concepts and theories to analyse real-world economic issues, such as market behaviour, policy implications, and economic trends. They will also be able to critically evaluate economic research and data using statistical and econometric techniques.
PSO-03	Research and Writing Skills: Graduates will have developed advanced research and writing skills, including the ability to conduct independent research, analyse economic data, and communicate their findings effectively through written reports, policy briefs, and other forms of economic writing
PSO-04	Policy Analysis: Graduates will be able to assess the impact of economic policies on various stakeholders and evaluate their effectiveness in achieving desired outcomes. They will also be able to propose evidence-based policy recommendations to address economic challenges and promote economic recommendation are growth.
PSO-05	Quantitative Skills: Graduates will develop a strong foundation in quantitative methods, including statistical and econometric techniques, and be able to apply these

	skills to analyse economic data and conduct empirical research.
PSO-06	Communication Skills: Graduates will be able to communicate complex economic concepts and findings to different audiences, including policymakers, business leaders, and the general public, in a clear and concise manner.
PSO-07	Critical Thinking: Graduates will develop critical thinking skills and be able to analyse economic problems from multiple perspectives, consider trade- offs, and propose innovative solutions based on economic principles and evidence.
PSO-08	Professional Ethics: Graduates will understand and adhere to the professional ethics and standards of the economics, including academic integrity, objectivity, and confidentiality in research and policy analysis.

(2019Pattern)

PSO-01	Understand the behavior of Maharashtra, India and World economy
PSO-02	Analysis macroeconomic policies including fiscal and monetary policies of India since economic reforms.
PSO-03	Determine economic variables including inflation, unemployment, poverty, GDP, Balance of Payments using statistical methods.
PSO-04	Understand the behavior of financial and money markets and perform cost-benefit analysis for making investment decisions.
PSO-05	Ability to analyze and demonstrate knowledge of the basic theories/laws in economics-law of demand, law of supply, production function, etc
PSO-06	At the end of the course, the student should be able to evaluate microeconomic concepts, models and its use in real life situations.
PSO-07	Ability to recognize, apply and analyze concepts and theories in public economics.
PSO-08	Ability to appraise and assess the theory of public economics in real life situations.

M.A. (2023Pattern)

PSO-01	Knowledge of Economic Theories: Graduates of an M.A. in Economics will possess a strong understanding of economic theories, including micro economics, macroeconomics, econometrics, and other specialized areas of economics.
PSO-02	Analytical Skills: Graduates will be able to apply economic concepts and theories to analyse real-world economic issues, such as market behaviour, policy implications, and economic trends. They should also be able to critically evaluate economic research and data using statistical and econometric techniques.

PSO-03	Research and Writing Skills: Graduates will have developed advanced research and writing skills, including the ability to conduct independent research, analyse economic data, and communicate their findings effectively through written reports, policy briefs, and other forms of economic writing.
PSO-04	Policy Analysis: Graduates will be able to assess the impact of economic policies on various stakeholders and evaluate their effectiveness in achieving desired outcomes. They should also be able to propose evidence-based policy recommendations to address economic challenges and promote economic growth.
PSO-05	Quantitative Skills: Graduates will develop strong foundation in quantitative methods, including statistical and econometric techniques and be able to apply these skills to analyse economic data and conduct empirical research.
PSO - 6	Communication Skills: Graduates will be able to communicate complex economic concepts and findings to different audiences, including policymakers, business leaders, and the general public, in a clear and concise manner.
PSO - 7	Critical Thinking: Graduates will develop critical thinking skills and beable to analyse economic problems from multiple perspectives, consider trade-offs, and propose innovative solutions based on economic principles and evidence.
PSO - 8	Professional Ethics: Graduates will understand and adhere to the professional ethics and standards of the economics, including academic integrity, objectivity, and confidentiality in research and policy analysis
PSO - 9	Professional Development: MA Economics programs often include professional development components, such as internships or seminars, to prepare students for careers in economics.

(2019Pattern)

PSO-01	Ability to understand the concepts of international economics such as comparative cost, terms of trade, trade policies and trade agreements
PSO-02	Ability to interpret and apply theory relating to understand international trade
PSO-03	Ability to discuss and debate the effects of trade policy, trade agreements, exchange rate policies on the world economy/trade
PSO-04	Ability to analyze and evaluate the subject with reference to various aspects of agrarian economies.
PSO-05	Ability to develop an understanding of agriculture with its intricacies and imperfections and to be able to construct intellectual dialogue on the challenges of agriculture

COURSE OUTCOME

B. A. / B. Com 2024 (Pattern)

SN	Class	Sem	Subject with code	CO
1	**FY BA 2024 Pattern**	1	**Indian Economy-I (ECO 101 T)**	• The Students shall be able to understand nature of Developed and Developing Economies.
				• Learners will understand major issues regarding economic development of India.
				• Ability to compare and contrast Indian Economy with other world economies.
				• After completing the course, the students will be able to appear for various
				• To familiarize the students with the recent developments in the Indian Economy
2	**FY BA 2024 Pattern**	1	**Indian Economy-I (ECO 102 P)**	• To help the students to prepare for varied competitive examinations
				• Ability to develop an understanding of the economic environment and the factors affecting economic environment.
3	**FY BA 2024 Pattern**	1	**Indian Economic Policy-I (OE- 101 ECO)**	• At the end of the course, the student should be able discuss and debate on the various issues and challenges facing the Indian Economic Environment.
				• To create the awareness of the student of modern banking system.
				• Understanding of the opportunities of banking their interaction with rest of the economy essential to realize how monetary force operates through multitude of channels.
				• To understand fundamentals of modern financial system
4	**FY BA 2024 Pattern**	1	**Tourism Economics (SEC-101-Eco)**	• To understand the recent trends and developments in banking system.
				• To understand the role of the Reserve Bank of India in Indian financial system.
				• To provide the knowledge of various financial and non-financial institutions.

5	**FY BA 2024 Pattern**	2	**Indian Economy-III (ECO 151 T)**	• To develop an understanding about subject matter of Economics. • To clarify micro economic concepts • To analyse and interpret charts, graphs and figures • To develop an understanding of basic theories of micro economics and theirapplication.
6	**FY BA 2024 Pattern**	2	**Indian Economy-IV (ECO 152 P)**	• To understand the behavior of an economic agent namely; a consumer, a producer, a factor owner and the price fluctuations in a market. Price formation in different markets structure and the equilibrium of a firm and industry. • To demonstrate that the theories discussed in class will usually be applied to real-life situations.
7	**FY BA 2024 Pattern**	2	**Indian Economic Policy-II (OE- 151 ECO)**	• To understand the economic analysis in terms of theoretical, empirical as well as policy-making issues. • The objective of the course is to familiarize the students the basic concepts of Macroeconomics and applications. • To introduce students to the historical background of the emergence ofmacroeconomics
8	**FY BA 2024 Pattern**	2	**Agri business (SEC-151 ECO)**	• To familiarize students with the differences between microeconomics andmacroeconomics. • · To familiarize students with various concepts of national income • To familiarize students with keynesian macroeconomic theoretical framework of consumption and investment functions
9	**FY B Com 2024 Pattern**	1	**Introduction to bahavioural Economics (IBE)**	• This paper is devoted to the theories of economics development, approaches to economic development, social and institutional aspects of development, constraints on development process, macroeconomic policies, role of foreign capital and economic planning in developing countries. • To relate and recognize the concept and indicators of Economic Development.
10	**FY B Com**	2	**Market Structure**	• To explain the characteristics of Developing and Developed Countries.

	2024 Pattern		**and welfare Economics (MSE129T)**	• To describe the constraints to the process of Economic Development.

B.A. / B. Com (2019 Pattern)

SN	Class	Sem	Subject with code	Course Outcomes
1	**FY BA**	1	**Indian Economic Environment-I (11151)**	• To familiarize the students with the recent developments in the Indian Economy. • To help the students to prepare for varied competitive examinations • To provide the students with the background of the Indian Economy with focus. Ability to develop an understanding of the economic environment and the factors affecting economic environment. • Ability to develop awareness on the various new developments in the different sectors of an economy – agriculture, industry, services, banking, etc.
2	**FY BA**	2	**Indian Economic Environment-II (12151)**	• To help the students to prepare for varied competitive examinations • To enable students to understand and comprehend the current business scenario, agricultural scenario and other sectorial growth in the Indian context. To make the student aware of the developments such as MSMEs, Digital Economy, E-Banking, BPO & KPO, etc. • Ability to develop an understanding of the economic environment and the factors affecting economic environment. • At the end of the course, the student should be able discuss and debate on the • Various issues and challenges facing the Indian Economic Environment.
3	**SY BA**	3	**Financial System-I (23153)**	• Understanding of the opportunities of banking their interaction with rest of the economy essential to realize how monetary force operates through multitude of channels. • To understand fundamentals of modern financial system • To understand the recent trends and developments in banking system.

4	**SY BA**	4	**Financial System-II (24153)**	• To develop an understanding about subject matter of Economics. • To impart knowledge of microeconomics. • To clarify micro economic concepts • To analyse and interpret charts, graphs and figures • To develop an understanding of basic theories of micro economics and their application.
5	**SY BA**	3	**Micro Economics –I (23151)**	• To understand the behavior of an economic agent namely; a consumer, a producer, a factor owner and the price fluctuations in a market. • To demonstrate that the theories discussed in class will usually be applied to real-life situations. • To help the students to prepare for varied competitive examinations
6	**SY BA**	4	**Micro Economics-II (24151)**	• To understand the economic analysis in terms of theoretical, empirical as well as policy-making issues. • The objective of the course is to familiarize the students the basic concepts of Macroeconomics and applications. • To introduce students to the historical background of the emergence ofmacroeconomics
7	**SY BA**	3	**Macro Economics-I (23152)**	• To familiarize students with the differences between microeconomics andmacroeconomics. • To familiarize students with various concepts of national income • To familiarize students with Keynesian macroeconomic theoreticalframework of consumption and investment functions
8	**SY BA**	4	**Macro Economics-II (24152)**	• This paper is devoted to the theories of economics development, approaches to economic development, social and institutional aspects of development, constraints on development process, macroeconomic policies, role of foreign capital and economic planning in developing countries. • To relate and recognize the concept and indicators of Economic Development. • To describe and analyze the concept and indicators of Human Development.
9	**TY BA**	5	**Indian Economic Development-I**	• To explain the characteristics of Developing and Developed Countries. • To describe the constraints to the process of Economic Development.

			(35153)	
10	**TY BA**	6	**Indian Economic Development-II (36153)**	• Course provides the students a thorough understanding and deep knowledge about the basic principles that tent to govern the free flow of trading goods and services at the global level. • It trained about the rational of recent challenge in the export import policies of India.
11	**TY BA**	**5**	**International Economics-I (35151)**	• To relate and recall the concepts of International Economics and • International Trade. • To describe and apply the theories of international trade. • To explain and comprehend the issues relating to Terms of trade and Balance of Payment.
12	**TY BA**	6	**International Economics-II (36151)**	• To relate and recognize the Nature and Scope of Public Finance. • To explain types of Public Expenditure and reasons for rising Public Expenditure. • To explain the types of Public Debt and its effects.
13	**TY BA**	5	**Public Finance-I (35152)**	• To explain and assess the components and instruments of Fiscal Policy. • To relate to the concepts of Budget and its components. • To describe and analyze the concept of Deficit Financing and its effects. • To describe and explain the Centre and State Financial Relationship.
14	**TY BA**	6	**Public Finance-II (36152)**	• Ability to compare and contrast Indian Economy with other world economies. • To describe and analyse the concept of Public Revenue and its components.
15	**F.Y. B. Com**	1	**Business Economics (Micro) (113)**	• To impart knowledge of business economics • To clarify micro economic concepts • To analyze and interpret charts and graphs • To understand basic theories, concepts of micro economics and their application
16			**Business Economics (Micro)**	• To understand the basic concepts of micro economics.

	F.Y. B. Com	2	**(123)**	• To understand the tools and theories of economics for solving the problem of decision making by consumers and producers. • To understand the problem of scarcity and choices.
17	**S.Y. B. Com**	3	**Business Economics (Macro) (233)**	• To understand the concept, process and importance of communication. • To acquire and develop good communication skills requisite for business correspondence. • To develop awareness regarding new trends in business communication. • To provide knowledge of various media of communication. • To develop business communication skills through the application and exercises.
18	**S.Y. B. Com**	4	**Business Economics (Macro) (243)**	• To familiarize the students to the basic theories and concepts of Macro Economics and their application. • To understand the theories of money. • To understand the phases of trade cycle and policy measures to elongate the trade cycle. • To understand various concepts related to public finance. • To understand credit creation of banks and money measures of RBI.
19	**T.Y. B. Com**	5	**Indian and Global Economic Development (353)**	• Students will be able to understand present Economic Scenario of Indian Economy as well as World Economy. • Students will understand the working of foreign trade market and foreign exchange market. • Students will be able to comprehend trade policies and concepts related to trade policies. • Students will be able to use the subject knowledge in their future academic and professional ventures.
20	**T.Y. B. Com**	6	**Indian and Global Economic Development (363)**	• Students will be able to understand the concept of Human Resource Development. • Students will be able to understand the role of foreign capital in Economic Development. • Students will be able to critically evaluate the Indian Foreign Trade Policy. • Students will be able to analyze the role of International Financial Institutions. • Students will be able to evaluate the success of Regional Economic Cooperation's.

Course Outcomes (MA-Economics) 2023Pattern

SN	Class	Sem	Course	Course Outcomes
1	**MA- I**	**1**	**Micro Economic Analysis - I ECO 501 MJ**	• Understand the basic principles of micro economics or price theory. • Apply the micro economic concepts in various contexts. • Understand the basic theories in microeconomics such as demand theory, production theory, market structures etc. • Discuss the modern developments in micro economics such as Modern Demand theories, Production theories, social welfare theories
2	**MA- I**	**1**	**Public Finance- IECO 502 MJ**	• Analyse the Economic Issues related to local to global scenarios. • Understand how economic policies affect the common people through interactions • Understand the changing role of the government and the Fiscal functions of the modern governments. • Discuss on the concepts and theories in public economies, Like public policy, principles of taxation, theories of public expenditure
3	**MA- I**	**1**	**International Economics- I ECO 503 MJ**	• Understand the theoretical concept in international trade. • Analyse international economics with reference to terms of trade, trade policy, trade agreements etc. • Discuss Free Trade & Controlled trade, tariff & non-tariff barriers & its effect. • Explain the role of WTO and changing scenario of International Trade.
4	**MA- I**	**1**	**Modern Banking ECO 504 MJP**	• Understand the fundamentals of modern banking. • Explore the various functions and departments within a bank. • Develop an understanding of different banking products and services. • Acquire practical knowledge of banking operations, including account opening, cash handling, payment processing, and reconciliation.

				• Understand the role of technology in modern banking, including digital banking platforms, financial Technology innovations, and cyber security measures. • Develop critical thinking and problem-solving skills through case studies and • real-world scenarios relevant to modern banking
5	**MA- I**	**1**	**Indian Economic Policy ECO 510 MJ**	• The syllabi equips the students to comprehend and critically appraise current Indian Economic Issues and Identify the concepts and the issues and policies in Economic Development. • Demonstrate the various Issues and policies of Infrastructural, Social and Industrial sector of the economy. • Exemplify various issues of Agriculture LPG, Infrastructure, Financial and Monetary institutions, Foreign Trade and Fiscal Policy pertaining to India's economic development. • Propose a way in which past policies could have been more effectively applied and examine the consequences. • Appraise the contemporary developments in the Indian as well as International economy
6	**MA- I**	**1**	**Agricultural EconomicsECO 511 MJ**	• The students will able to analyze and evaluate the subject with reference to various aspects of agrarian economies. • They will understand the role of agriculture with its intricacies and imperfections and to be able to construct intellectual dialogue on the challenges before the agriculture
7	**MA- I**	**1**	**Research Methodology ECO 541 RM**	• Understand some basic concepts of research and its methodologies. • Identify appropriate research topics. • Select and define appropriate research problem and parameters. • Organize and conduct research (advanced project) in a more appropriate manner. • Write a research report and thesis. • Write a research proposal.
8	**MA- I**	**2**	**Micro Economic Analysis - II ECO 551 MJ**	• Understand the basic principles of micro economics or price theory. • Apply micro economic concepts in various contexts.

				• Understand the basic Market structure in microeconomics. • Analyze the equilibrium of firm and industry in short and long run in various markets • Discuss the modern developments in micro economics such as Kinky Demand Curve, Game Theory
9	**MA- I**	**2**	**Public Finance-II ECO 552 MJ**	• To understand, apply and analyze concepts of public finance like, public debt policy, fiscal policy, etc. • Understand the normative policies and compare it with the policies framed and followed by Union Government. • Analyse causes and effects of fiscal reforms. • Interpret various aspects of Indian Fiscal Federalism
10	**MA- I**	**2**	**International Economics- I ECO 553 MJ**	• Understand the theoretical concepts of Balance of Payments, exchange rate policies, capital flows, etc. • Analyse & interpret various aspects of Foreign Exchange. • Interpret recent developments and changes in international banking, international banking agreements, International Capital Flows etc. • Explain the role of international economic organization. • Discuss various concepts associated with International Banking
11	**MA- I**	**2**	**Tools of Economics Analyses ECO 554 MJP**	• Understand and apply key economic concepts and principles to real-world economic scenarios. • Acquire proficiency in collecting, cleaning, and handling economic data for analysis. • Develop data analysis and econometric skills to estimate economic relationships and draw meaningful conclusions. • Apply economic analysis to real-world economic problems and policy challenges. • Analyze market behavior, consumer choices, production, and cost structures using economic models. • Present economic analysis and findings effectively through written reports and presentations. • Enhance critical thinking and problem-solving abilities related to economic issues.
12	**MA- I**	**2**	**Labour Economics ECO 560 MJ**	• This Course will give exposure to the students for theoretical as well as empirical issues relating to the labour market with special reference to India.

				• This Course covers traditional and contemporary topics in labour economics and aims to encourage the development of independent research interests. • Students will able to understand Issues pertaining to the labour market, wage theories, employment policies trade unions and collective bargaining in the globalized economy have become vitally important for developing countries. • Students will able to understand the labour force is in the organized sector and the organized sector is witnessing "Jobless" growth. • Students will develop an understanding of labour as social relations of production that will enable them to locate it in that perspective rather than locating labour simply as a factor of production
13	**MA- I**	**2**	**On Job Training (Internship) ECO 581 OJT**	• Develop practical approach to acquiring new competencies and skills needed for a job in a real, or close to real, working environment. • It is often used to learn how to use particular tools or equipment in a live-work practice, simulated, or training environment. OJT is a type of training that is provided at the workplace. • It helps students get direct experience in using tools, software, techniques, or equipment used in a live environment. As employees need different skills to accomplish their tasks, OJTs are customized to train students to acquire a specific skill set. • Professional trainers and co-workers usually provide this training.
14	**MA-II**	**3**	**Macro Economic Analysis I EC0-601-MJ**	• Provide a thorough understanding of the principles of macroeconomics and the application of macroeconomic concepts in real-life situations. • Discuss the modern developments in macroeconomics.
15	**MA-II**	**3**	**Economic Growth & Development I EC0-602-MJ**	• Enable learning and understanding of the basic concepts and process to measure the growth and economic development etc. • Analyze and evaluate the obstacles in the process of economic growth and • development
16	**MA-II**	**3**	**Indian Financial System I**	• To understand fundamentals of modern financial system.

			EC0-603-MJ	• To understand financial system and its relationship with economic development • To Analyze international financial environment
17	**MA-II**	**3**	**Indian Financial System II EC0-604-MJ**	• To understand The Indian Financial market. • To evaluate Reforms in Indian Financial System • To understand the role of the Reserve Bank of India in Indian financial system. • To provide the knowledge of various financial and non-financial institutions
18	**MA-II**	**3**	**Demography EC0-611-MJ**	• To provide an understanding of Demography and its application under various topics under economics. • To demonstrate the practical and the applied aspects of Demography and the study of Population and its relation to Economics
19	**MA-II**	**3**	**Research Project ECO-631-RP**	• To enable an understanding of Research and its methods under various areas of economics. • To demonstrate the practical and the applied aspects of research in relation to Economics
20	**MA-II**	**4**	**Macro Economic Analysis – II EC0-651-MJ**	• To provide a thorough understanding of the principles of macroeconomics and the application of macroeconomic concepts in real-life situations. • To discuss the modern developments in macroeconomics.
21	**MA-II**	**4**	**Economic Growth & Development – II EC0-652-MJ**	• The sectoral aspects of growth and development and policies will help the students to understand the social and political aspects of economic development • The students will be able to undertake cross country analysis for the policies formulated by the international financial institutions.
22	**MA-II**	**4**	**Economics of Environment – I EC0-653-MJ**	• To create environmental awareness among the students. • To understand the economic consequences of global warming. • To provide the information to public especially the farmers
23	**MA-II**	**4**	**Economics of Environment – II EC0-654-MJP**	• To create environmental awareness among the students. • To understand the economic consequences of global warming. • To provide the information to public especially the farmers

24	**MA-II**	**4**	**Urban Economics EC0-661-MJ**	• To develop an understanding of urban economics in the theoretical as well as practical context. • To elaborate and discuss on the various concepts and terminologies used in urban economies. • To discuss and debate the various issues and challenges faced by urban economies.
25	**MA-II**	**4**	**Research Project ECO-681-RP**	• To enable an understanding of Research and its methods under various areas of economics. • To demonstrate the practical and the applied aspects of research in relation to Economics.

Course Outcomes (MA-Economics) 2019 Pattern

SN	Class	Sem	Course	Course Outcomes
1	**MA- I**	**1**	**Micro Economics Analysis-I (12301)**	• To provide a thorough understanding of the principles of economics • To enable students to apply micro economic concepts in various contexts. • To enable understanding the basic theories in microeconomics such as demand theory, production theory, market structures. • To discuss the modern developments in micro economics such as Modern Demand theories.
2	**MA- I**	**2**	**Micro Economics Analysis-II (22301)**	• To provide a thorough understanding of the principles of economics • To enable students to apply micro economic concepts in various contexts. • To enable understanding the basic theories in microeconomics such as demand theory, production theory, market structures. • To discuss the modern developments in micro economics such as Game Theory.
3	**MA- I**	**1**	**Public Economics-I (12302)**	• To develop an understanding of the changing role of the government and the fiscal functions of the modern governments. • •To discuss and deliberate on the concepts and theories in public economies like public policy, principles of taxation, theories of public expenditure, etc. • To develop an understanding of various policies in public economics like fiscal policy, taxation policy, public debt policy, public expenditure policy etc.

4	**MA- I**	**1**	**International Trade (12303)**	• To develop an understanding of the theoretical concept in international trade. • To analyze international economics with reference to terms of trade, trade policy, trade agreements etc. • To provide knowledge to students regarding recent developments and changes in international banking, international banking agreements etc. • To make the students understand role of international economic organization and global crisis development.
5	**MA- I**	**1**	**Agricultural Economics (12304)**	• To develop an understanding of agricultural economics in the theoretical as well as practical context. • To discuss and debate the various issues and challenges faced by agrarian economies production, productivity, efficiency, employment, etc.
6	**MA- I**	**2**	**Public Economics-II (22302)**	• To develop an understanding of various policies in public economics like fiscal policy, public debt policy, fiscal finances, etc. • To help the students to understand the normative policies and compare it with the policies framed and followed by Indian economy. • To impart information to the students about the reforms like taxation reforms in India
7	**MA- I**	**2**	**International Finance (22303)**	• To develop an understanding of the theoretical concept in international financeBalance of Payments, exchange rate policies, capital flows, etc. • To compare and contrast the scenarios on international trade in India vis-à-vis the world economy. • To provide knowledge to students regarding recent developments and changes in international banking, international banking agreements etc. • To make the students understand role of international economic organization and global crisis development
8	**MA- I**	**2**	**Labour Economics (22304)**	• To develop an understanding of labour economics in the theoretical as well as practical context. • To discuss and debate the various issues and challenges faced by labour with reference to division of labour, employment, wage determination, etc. • To demonstrate on the various aspects
9	**MA- II**	**3**	**Macro Economics Analysis-I (32301)**	• Course equips the students to understand systematic facts and latest theoretical development for empirical analysis.

9	**MA- II**	**4**	**Macro Economics Analysis-II (42301)**	• This course assumed such a great significance in recent times that a prior understanding of macroeconomics theoretical structure is considered essential of the proper comprehension of the different issues and policies
10	**MA- II**	**3**	**Growth &Developmen t-I(32302)**	• To understand the importance of population in economic development and various theories that explains the growth of population in a country
10	**MA- II**	**4**	**Growth &Developmen t-II (42302)**	• India beginning a developing country this subject becomes extremely relevant for current situation. It includes the practical aspects of process of growth and development including the role of agriculture and industry, external trade and resources mobilization and the role of the state and the markets.
11	**MA- II**	**3**	**Research Methodology (32303)**	• Course intends to make students aware about the changing scenario of the modern banking role, structure, performance and the current problem faced by the banking sector in India and also in the world. • It also covers the future prospects and role of modern banking sector at the global level
11	**MA- II**	**4**	**Research Methodology (42303)**	• Course provides extension and application of knowledge in a current specialized field. To get exposed to a few elements of social science research. Elementary knowledge of research methodology consolidated and depend their understanding of various branches of economics.
11	**MA- II**	**3**	**Demography (32305)**	• Gender characteristics, migration and urbanization are the essential to understand the dynamics of this change
12	**MA- II**	**4**	**Economics of Environment (42306)**	• The course attempts to sensitize the students about the dynamics of changes in the Rural Economy. It includes the study of problems faced by rural population and also includes the critical review of various schemes and projects that benefit the rural population. In this course the students are also made capable to understand the process of rural development and problems of rural development

5)DEPARTMENT POLLITICAL SCIENCE

COURSE OUTCOME(CO)

2024 Pattern	
PO -01	The students acquire knowledge in the field of social sciences, literature and humanities which make them sensitive and sensible enough.
PO-02	The B.A. graduates will be acquainted with the social, economical, historical, geographical, political, ideological and philosophical tradition and thinking
PO-03	The program also empowers the graduates to appear for various competitive examinations or choose the post graduate programme of their choice.
2019 Pattern	
PO-01	The B. A. program enables the students to aquire the knowledge with human values framing the base to deal with various problems in life with courage and humanity.
PO-02	The students will be ignited enough to think and act over for the solution of various issues prevailed in the human life to make this world better than ever
PO-03	Program provides the base to be the responsible citizen

PROGRAM SPECIFIC OUTCOME(PSO)

2024 Pattern	
PSO -01	Student aware about the Political Process
PSO-02	The concept and Ideas political science will be developed.
2019 Pattern	

PSO-01	Student will understand the traditional and modern political thought.
PSO-02	Student will aware about concept of Political Journalism
PSO-03	Student will able to understand the various Political Ideologies administrative systems.

COURSE OUTCOME
(2024 Pattern)

S.N.	Class	Sem	Subject With Code	COURSE OUTCOME
1	**BA-I**	**I**	**POL-101-T**	• The students will be able to understand the nature and scope of Political Science. • The students shall understand the various traditional and modern approaches to the study of Political Science. • The students will understand the basic concepts in Political Science and apply these concepts in making sense of social realities.
		II	**POL-151-T**	• The students will be able to understand the nature and scope of Political Science. • The students shall understand the various traditional and modern approaches to the study of Political Science. • The students will understand the basic concepts in Political Science and apply these concepts in making sense of social realities.
2		**I**	**POL-102-P**	• To enable the students to apply their understanding of basic concepts of Political Science and their application. • To understand the various dimensions of state, equality-freedom and democracy through their practical use. • Students will know how to apply the concepts learned in class in real life.

3	**BA-I**	**II** **I**	**POL-152-P** **OE-101-POL**	• The students will know how the contents of Political Science are actually used. • The students will develop a basic understanding of citizenship theories and concepts, demonstrating a comprehension of the foundational elements that shape good citizenship. • They will be able to take on the challenges to citizenship in a more matured learned manner. • They will acquire the skills necessary for effective civic discussion, enabling students to actively contribute to community discussions, collaborate with peers, and work towards positive societal changes.
4		**II** **I**	**OE-151-POL** **SEC-101-POL**	• They will be able to showcase the ability to translate theoretical knowledge into practical action through engagement in community service projects and active participation in civic initiatives. • This will help them to understand the real-life situations in our society and use their skills to practically deal with them • Communication is a very important aspect in personal and social life. The purpose of this course is to explore and understand the theoretical concept of communication, including its process, types and significance in personal and social contexts. • To develop a comprehensive understanding of how to establish effective communication in both personal and professional settings, and to identify the necessary mediums for achieving successful communication. • Students will understand the fundamentals of communication and its various forms, types, and barriers.

5		**II** **I** **II**	**SEC-151-POL** **VEC-101-POL** **VEC-151-POL**	• Students will be able to apply communication techniques effectively in real-world scenarios. • The students will be able to explain the core philosophy and ideals of the Indian Constitution. • The students will be able to understand the Indian values, ideals and the role of the Constitution in a democracy. • Students will know about the fundamental rights and how these rights are different from the Directive Principles of the State Policy. • The students will be able to explain the nature, features and process of the Indian Federal System. • The students will be able to understand the role of the Parliament in the Indian political system. • Students will know about the different powers of Parliament and Central Government.

6	**S.Y.B.A (G-2)**	**III** **IV**	**23164** **24164**	• To study of power Politics • To study the role of ideology • Role of different political ideologies and their impact in politics • To study how to work political Ideology
7	**S.Y.B.A (S-1)**	**III** **IV**	**23161** **24161**	• To know basic concept of Western Political Thought • Major traditions of thought that have shaped political discourse in different parts of The world • The great diversity of social contexts and philosophical visions
8	**S.Y.B.A (S-2)**	**III** **IV**	**23162** **24162**	• To Introduced The concept of Political Journalism • To Developed interest in study of Political Journalism • Awareness about various agencies of Political Journalism
10	**S.Y.B.A (SEC)**	**III** **IV**	**23165** **24165**	• To acquaint students with the important features of the Constitution of India and with the basic framework of Indian government • To familiarize students with the working of the Constitution of India • This paper focuses in detail on the political processes and the actual functioning of the political system. • To study of Local self Government • To Study of Jhilha Parishad • To Study of Panchayat Samiti & Gram Panchayat • To Study of Municipal Corporation
11 **12**	**T.Y.B.A (G-3)**	**V** **VI**	**35164** **36164**	• Understand the Concept of Governance • Knowledge of Bureaucracy • Introduction about various method of recruitment and training • Introduction of the various approaches to the study of international relation • Knowledge of Post Second World War

	T.Y.B.A (S-3)	**V**	**35161**	• Understanding of basic concept of International Politics
		VI	**36161**	• This Course is an introduction to the political process in Maharashtra with special reference to regionalism sub-regionalism and Samyukta Maharashtra Movement
13	**T.Y.B.A (S-4)**	**V**	**35162**	• The aim of the course is that students are expected to understand both the historical evolution of Maharashtra's politics and different analyses of politics of the state.
		VI	**36162**	
14	**T.Y.B.A (SEC)**	**V**	**35165**	
		VI	**36165**	

(2019Pattern)

SN	Class	Sem	Subject With Code	COURSE OUTCOME
1.	**F.Y.B.A**	**I**	**11161**	• Understanding of basic concept o Indian Constitution
2	**F.Y.B.A**	**II**	**12161**	• Understanding of structure and Functions of Indian Political Systems.

				• Knowledge of fundamental rights and duty. • Understanding the role of cast and religion in Indian Politics
3	**S.Y.B.A (G-2)**	**III** **IV**	**23164** **24164**	• To study of power Politics • To study the role of ideology • Role of different political ideologies and their impact in politics • To study how to work political Ideology
4	**S.Y.B.A (S-1)**	**III** **IV**	**23161** **24161**	• To know basic concept of Western Political Thought • Major traditions of thought that have shaped political discourse in different parts of The world • The great diversity of social contexts and philosophical visions
5	**S.Y.B.A (S-2)**	**III** **IV**	**23162** **24162**	• To Introduced The concept of Political Journalism • To Developed interest in study of Political Journalism • Awareness about various agencies of Political Journalism
6	**S.Y.B.A (SEC)**	**III** **IV**	**23165** **24165**	• To acquaint students with the important features of the Constitution of India and with the basic framework of Indian government • To familiarize students with the working of the Constitution of India • This paper focuses in detail on the political processes and the actual functioning of the political system.
				• To study of Local self Government • To Study of Jhilha Parishad

7	**T.Y.B.A (G-3)**	**V** **VI**	**35164** **36164**	• To Study of Panchayat Samiti & Gram Panchayat • To Study of Municipal Corporation • Understand the Concept of Governance • Knowledge of Bureaucracy • Introduction about various method of recruitment and training
8	**T.Y.B.A (S-3)**	**V** **VI**	**35161** **36161**	• Introduction of the various approaches to the study of international relation • Knowledge of Post Second World War • Understanding of basic concept of International Politics
9	**T.Y.B.A (S-4)**	**V** **VI**	**35162** **36162**	
10	**T.Y.B.A (SEC)**	**V** **VI**	**35165** **36165**	• This Course is an introduction to the political process in Maharashtra with special reference to regionalism sub-regionalism and Samyukta Maharashtra Movement • The aim of the course is that students are expected to understand both the historical evolution of Maharashtra's politics and different analyses of politics of the state. • It tries to acquiant students with the main issues and concerns in the public life of a regional society as it shaped in the concept of colonialism, nationalism and modernity

DEPARTMEENT OF GEOGRAPHY

(2024Pattern)

PO -01	The bachelor program in geography is tailored to meet the students specific educational and professional goals in mind.
PO-02	During the first year of the program, the students are trained on advanced concepts of physical and human geography.
PO-03	The second year allows them to concentrate on specific areas of the subject, on which they complete their field reports.
PO-04	Develop the general understanding of global human population pattern factor influencing the distribution and mobility of human population including settlement and economic activities and human impacts on the physical environment.
PO-05	Read, interpret and generate maps and other geographic representations as well as analyze and present information from a special perspective.
PO-06	Evaluate cultural social physical and environmental process with a particular focus on space and place.
PO-07	The bachelor program in geography is tailored to meet the student's specific educational and professional goals in mind.

(2019 Pattern)

PO -01	The bachelor program in geography is tailored to meet the students specific educational and professional goals in mind.
PO-02	During the first year of the program, the students are trained on advanced concepts of physical and human geography.
PO-03	The second year allows them to concentrate on specific areas of the subject, on which they complete their field reports.
PO-04	Develop the general understanding of global human population pattern factor influencing the distribution and mobility of human population including settlement and economic activities and human impacts on the physical environment.
PO-05	Read, interpret and generate maps and other geographic representations as well as analyze and present information from a special perspective.
PO-06	Evaluate cultural social physical and environmental process with a particular focus on space and place.
PO-07	The bachelor program in geography is tailored to meet the student's specific educational and professional goals in mind.

(2024Pattern)

PSO -01	Student aware about the geographical Process
PSO-02	The concept and Ideas geographical will be developed.
PSO-03	Student will understand the traditional and modern geographical thought.
PSO-04	Student will aware about concept of geography
PSO-05	Student will able to understand the various geographical activities

(2019Pattern)

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COURSE OUTCOME
(2024Pattern)

SN	Class	Sem	Subject With Code	COURSE OUTCOME
1.	F. Y. B. A.	I	Gg101-T: Physical Geography	CO-1. To Students are Understand fundamental Concepts, Theories and Approaches of Physical Geography. CO-2 To Students are introduced to the various geographical features. CO-3 To Students Nature Scope and importance of Physical Geography
2.	F. Y. B. A.	I	Gg102-P: Practical in Physical Geography	CO-1 To Students are Identify different methods of relief representation CO-2 To Students Apply both qualitative and quantitative methods in representing and interpreting geographical features
3.	F. Y. B. A.	I	Gg 151-T Human Geography	CO-1 To Students understand Define and explain the meaning , nature and scope of Human Geography

				CO-2 To Students able to Discuss the different branches of human geography
4.	F. Y. B. A.	II	Geo -152 -P : Practical Human Geography	CO-1 Students able to Identify different methods of representation of population indices CO-2 Students able to Identify patterns of nucleation and dispersion in human settlement
5.	F. Y. B. A.	I	Gg. OE 101- T Geography of Tourism	CO-1 Understand of the definition, nature and scope of tourism CO-2 Recognize and articulate the economic, social and cultural importance of tourism CO3- Categories tourism based on nationality understanding the distinctions between domestic and international tourism
6.	F. Y. B. A.	II	Gg. OE 101- P Geography of Tourism	CO-1 Identify and described the essential elements of tour planning CO-2 Prepare tour planning materials including documentation and booking and cancellation systems transport and accommodation
7.	F. Y. B. A.	I	Gg. SEC 101 –T Water Analysis	CO-1 Comprehensive understanding of various quality parameters useful for assessment of water recourses CO-2 Understand water quality standards of BIS and WHO
8.	F. Y. B. A.	II	Gg. SEC 101 – P Water Analysis	CO-1Comprehensive understand of various water quality parameters useful for assessment of water recourses CO-2 Understand water quality standards of BIS and WHO
9.	F. Y. B. Com	I	VEC-101-T: Environment Education -1	CO-1 Students are Describe how human activity impact the environment
10.	F. Y. B.Sc	I	Gg101-T: Physical Geography	CO-1. To Students are Understand fundamental Concepts, Theories and Approaches of Physical Geography. CO-2 To Students are introduced to the various geographical features. CO-3 To Students Nature Scope and importance of Physical Geography

11.	F. Y. B.Sc	I	Gg102-P: Practical in Physical Geography	CO-1 To Students are Identify different methods of relief representation CO-2 To Students Apply both qualitative and quantitative methods in representing and interpreting geographical features
12.	F. Y. B.Sc	II	Gg 151-T Human Geography	CO-1 To Students understand Define and explain the meaning , nature and scope of Human Geography CO-2 To Students able to Discuss the different branches of human geography
13	F. Y. B.Sc	II	Geo -152 -P : Practical Human Geography	CO-1 Students able to Identify different methods of representation of population indices CO-2 Students able to Identify patterns of nucleation and dispersion in human settlement
14.	F. Y. B.Sc	I	Gg. OE 101-T Agriculture Geography	CO-1 Understand the significance of agriculture CO-2 Analyse the convectional and modern agriculture CO-3 Classified major types and characteristics of agriculture CO-4 Learn significance of agriculture policy and its impacts on sustainable farming
15.	F. Y. B.Sc	II	Gg. OE 101-P Practical in Agriculture Geography	CO-1 Understand the significance of agriculture CO-2 Analyse the crop combination using appropriate method CO- 3Evaluate finding of agriculture analysis effectively
16.	F. Y. B.Sc	I	Gg.SEC 101 –T Introduction to Cartography	CO-1 Recognize the key terminologies and principles associated with cartography CO-2 Describe the major technology advancement in cartographic techniques over time
17.	F. Y. B.Sc	I	Gg.SEC 101 –P Introduction to Cartography	CO-1 Recognize the key terminologies and principles associated with cartography CO-2 Describe the major technology advancement in cartographic techniques over time
18.	S.Y.B.A	III	Gg.210 (A)	CO-1Students are aware about dynamic environment among the student. CO-2Students are acquainted with fundamental concepts of environment

			Environment Geography – (23204)	Geography for development in different areas. CO-3Students have been able to integrate the various components of economic development and the dynamic aspects of economic geography. CO-4Students aware about the problems of environment, their utilization and conservation in the view of sustainable development.
19.	S.Y.B.A	IV	Sem. IV Gg.210 (B) Environment Geography- (24204)	CO-1Student are aware about dynamic environment among the students. CO-2Students are acquainted with the fundamental concepts of Environmental Geography. CO-3Students are acquainted about the past, presents and future utility and potentials of natural resources. CO-4Students are aware about the problems of environment, its utilization and conservation in the view of sustainable development.
20.	S.Y.B.A	III	Gg. 201 (A) Scale and Map Projection Practical Geography- (23203)	CO-1Develop practical skill and use of map scale and projection. CO-2To makes students aware of the new techniques, accuracy and skills of map making.
21.	S.Y.B.A	IV	Sem. IV Gg. 201 (B) Cartographic Techniques, Surveying and Excursion / Village / Project Report- (24203)	CO-1Develop practical knowledge and application of cartographical techniques. CO-2To makes students aware of the new techniques, accuracy and skills of Map Making.
22.	S.Y.B.A	III	: SEC Applied course of Disaster Management (23207)	CO-1Students are introduced to the basic concepts and fundamental structure of Disaster Management (DM). CO-2Students inculcated critical thinking and problem-solving abilities on disaster management. CO-3Students acquired assess the situation and design plan for Disaster management.
23.	S.Y.B.A	IV	: SEC	

			Applied course of Travel and Tourism (24207)	CO-1Students will be able to perform online as well as offline booking and cancellation procedures for different available modes of travel and tourism. CO-1Students will be able to acquire earning skills in tourism industry.
24.	T.Y.B.A	V	Gg. 320 (A) Geography of India- I (35201)	CO-1 Students are acquainted with Geography of our nation. CO-2 Students are aware about the magnitude of problems and Prospects at National level. CO-3Students are understand the inter relationship between the subject and society. CO-4 Students understand the recent trends in Regional studies.
25.	T.Y.B.A	VI	Gg. 320 (B) Geography of India- II (36201)	CO-1Students are acquainted with Geography of our nation. CO-2 Students are aware about the magnitude of problems and Prospects at National level. CO-3 Students are understand the inter relationship between the subject and society. CO-4 Students are understand the recent trends in Regional studies
26.	T.Y.B.A	V	301 (A) Practical Geography- I (Techniques of Spatial Analysis (35203)	CO-1Students introduced the basic concepts and techniques of Geographical Analysis. CO-2Students are introduced with SOI Top sheets and acquire the Knowledge of Top sheet interpretation. CO-3Students are students Introduced with Weather Maps and acquire the Knowledge of its interpretation. CO-4 Students are introduced with Aerial Photographs and Satellite Images and acquire knowledge to interpret it.
27	T.Y.B.A	VI	Gg. 301 (B) Practical Geography- II Techniques of Spatial Analysis, Surveying and Excursion /Village/ Project Report(36203)	CO-1Students are acquainted students with the spatial and structural characteristics of Practical Geography. CO-2Students explained the elementary and essential principles on field of practical work.

28.	T.Y.B.A	V	SEC 2 C Research Methodology – I (35207)	CO-1Students developed the understanding of the basic concept of research. CO-2Students developed the understanding of the basic framework of sampling and data collection. CO-3Students developed the understanding of various sampling methods and techniques.
29.	T.Y.B.A	VI	SEC 2 C Research Methodology – II (35207)	CO-1Students identified various sources of information for data collection. CO-2Students Understand of the conducting survey on various issues and develop the Report writing skill of students.

(2019Pattern)

SN	Class	Sem	Subject With Code	COURSE OUTCOME
1.	F. Y. B. A.	I	Gg110 (A): Physical Geography(11201)	CO-1ToStudents are introduced to the basic concepts in Physical Geography. CO-2ToStudents are introduced to the various geographical features.
2.	F. Y. B. A.	II	110(B) Human Geography (12201)	CO-1Acquaint learners to the correlations between Economic activities and Geographical factors.
	F. Y. B. Com	I	Commercial Geography (115C)	CO-1Acquaint learners to the correlations between Economic activities and Geographical factors. CO-2 Keep students update with various economic activities in Geographical Environment. CO-3The students with the dynamic aspects of resources and need for their conservation. CO-4Interpretation of the role and dynamics of population in Commerce.
	F. Y. B. Com	II	Commercial Geography (125C)	CO-1 To acquaint learners to the correlations between Economic activities and Geographical factors. CO-2 To discover the Industrial sector and the pollution associated with it.

				CO-3 To identify the changing role of transport and communication in Trade and Commerce. CO-4 To predict the role of tourism in development. CO-5 To observe basic cartographic techniques
3.	S.Y.B.A	III	Gg.210 (A) Environment Geography – (23204)	CO-1Students are aware about dynamic environment among the student. CO-2Students are acquainted with fundamental concepts of environment Geography for development in different areas. CO-3Students have been able to integrate the various components of economic development and the dynamic aspects of economic geography. CO-4Students aware about the problems of environment, their utilization and conservation in the view of sustainable development.
4.	S.Y.B.A	IV	Sem. IV Gg.210 (B) Environment Geography- (24204)	CO-1Student are aware about dynamic environment among the students. CO-2Students are acquainted with the fundamental concepts of Environmental Geography. CO-3Students are acquainted about the past, presents and future utility and potentials of natural resources. CO-4Students are aware about the problems of environment, its utilization and conservation in the view of sustainable development.
5.	S.Y.B.A	III	Gg. 201 (A) Scale and Map Projection Practical Geography- (23203)	CO-1Develop practical skill and use of map scale and projection. CO-2To makes students aware of the new techniques, accuracy and skills of map making.
6.	S.Y.B.A	IV	Sem. IV Gg. 201 (B) Cartographic Techniques, Surveying and Excursion /	CO-1Develop practical knowledge and application of cartographical techniques. CO-2To makes students aware of the new techniques, accuracy and skills of Map Making.

			Village / Project Report-(24203)	
7.	S.Y.B.A	III	: SEC Applied course of Disaster Management (23207)	CO-1Students are introduced to the basic concepts and fundamental structure of Disaster Management (DM). CO-2Students inculcated critical thinking and problem-solving abilities on disaster management. CO-3Students acquired assess the situation and design plan for Disaster management.
8.	S.Y.B.A	IV	: SEC Applied course of Travel and Tourism (24207)	CO-1Students will be able to perform online as well as offline booking and cancellation procedures for different available modes of travel and tourism. CO-1Students will be able to acquire earning skills in tourism industry.
9.	T.Y.B.A	V	Gg. 320 (A) Geography of India- I (35201)	CO-1 Students are acquainted with Geography of our nation. CO-2 Students are aware about the magnitude of problems and Prospects at National level. CO-3Students are understand the inter relationship between the subject and society. CO-4 Students understand the recent trends in Regional studies.
10.	T.Y.B.A	VI	Gg. 320 (B) Geography of India- II (36201)	CO-1Students are acquainted with Geography of our nation. CO-2 Students are aware about the magnitude of problems and Prospects at National level. CO-3 Students are understand the inter relationship between the subject and society. CO-4 Students are understand the recent trends in Regional studies
11	T.Y.B.A	V	301 (A) Practical Geography- I (Techniques of Spatial Analysis (35203)	CO-1Students introduced the basic concepts and techniques of Geographical Analysis. CO-2Students are introduced with SOI Top sheets and acquire the Knowledge of Top sheet interpretation. CO-3Students are students Introduced with Weather Maps and acquire the Knowledge of its interpretation.

				CO-4 Students are introduced with Aerial Photographs and Satellite Images and acquire knowledge to interpret it.
12	T.Y.B.A	VI	Gg. 301 (B) Practical Geography- II Techniques of Spatial Analysis, Surveying and Excursion /Village/ Project Report(36203)	CO-1Students are acquainted students with the spatial and structural characteristics of Practical Geography. CO-2Students explained the elementary and essential principles on field of practical work.
13	T.Y.B.A	V	SEC 2 C Research Methodology – I (35207)	CO-1Students developed the understanding of the basic concept of research. CO-2Students developed the understanding of the basic framework of sampling and data collection. CO-3Students developed the understanding of various sampling methods and techniques.
14	T.Y.B.A	VI	SEC 2 C Research Methodology – II (35207)	CO-1Students identified various sources of information for data collection. CO-2Students Understand of the conducting survey on various issues and develop the Report writing skill of students.

2)FACULTY OF COMMERCE

(2024Pattern)

Program Outcomes : B. Com.	
1	To provide students with a strong foundation in financial and cost accounting principles, enabling them to understand, prepare, and interpret financial statements accurately.
2	To equip students with mathematical and statistical skills relevant to commerce, enabling them to solve complex problems and analyze data for decision-making.

(2019Pttern)

Program Outcomes : B. Com.	
1	To develop independent logical thinking and facilitate personality development of the students
2	To equip the students for seeking suitable careers in management and entrepreneurship

(2023Pattern)

Program Outcomes : M. Com.	
1	To equip and train Post Graduate students to accept the challenges of Business World by providing opportunities for study and analysis of advanced Commercial and business methods and processes
2	To inculcate students with methods of Data collection and interpretations.
3	To develop among students Communication, Study and Analytical skills.

(2023Pattern)

Program Specific Outcomes : B. Com. (Cost & Works Accounting) (NEP Pattern)	
1	Students Learned the basic concepts of Cost and Management Accounting.
2	Students understood the elements and classification of cost.
3	Students got enabled to prepare a Cost Sheet, Tender and Quotation

(2019Pttern)

Program Specific Outcomes : B. Com. (Cost & Works Accounting) (Non NEP Pattern)	
1	Students got knowledge about Basic Cost concepts, Elements of cost, Ascertainment of Material and Labour Cost.
2	Students obtained knowledge about the concepts and principles application of Overheads
3	Students understood various methods of costing and their applications
4	Students understood the concepts and utility regarding costing techniques.
5	Students obtained the information about importance of training includes concepts, procedures and legal Provisions of cost audit.

(2024Pattern)

Program Specific Outcomes : B. Com. (Business Administration) (NEP Pattern)	
1	Students are able to understand the concepts of modern automated offices
2	They have learned the conceptions of office work low and importance of office layout.
3	They grasped the knowledge of modern technology used in offices.

Program Specific Outcomes : B. Com. (Business Administration) (Non NEP Pattern)	
1	Students understood the concept and functions of Management and levels of management
2	Students acquired basic knowledge about various forms of business organizations
3	Students got information about various theories of management with modern aspects
4	Students understood management in globalize scenario
5	Students got knowledge about management techniques and organization structure.
6	Students got acquaint about business environment and its implications thereon.
7	Students understood the recent trends in business.

Program Specific Outcomes : B. Com. (Marketing Management) (NEP Pattern)

1	Students were introduced with the basic concepts in Marketing.
2	They got the insight of the basic knowledge of Market Segmentation and Marketing Mix
3	Students can establish link between commerce, business and marketing.

(2019 Pattern)

Program Specific Outcomes : B. Com. (Marketing Management) (Non NEP Pattern)	
1	Students understood the concept and functions of marketing planning and sales management
2	Students got knowledge about marketing strategies and organization
3	Students got information about various facts of marketing with regulatory aspects
4	Students understood marketing in globalize scenario
5	Students obtained knowledge regarding the concepts of Marketing Research
6	Students understood the role of Brand and Distribution of production including Management in marketing.
7	Students understood the basic concepts related to Marketing, Management, Productivity and Economic Development
8	Students obtained knowledge about the importance of control on marketing activities

(2024Pattern)

Program Specific Outcomes : M. Com. (Business Administration) (NEP Pattern)	
1	Students got knowledge of concepts, nature and structure of Production and Operation Management
2	Students got sound knowledge of concepts, nature and structure of Financial Management
3	Students acquire sound knowledge of concepts, nature and importance of knowledge management
4	Students got acquaint with in-depth knowledge of HRM, practices followed by HR managers and understanding about recent trends in HRM
5	Students understood various concepts of organization behavior, knowledge about process of formation of group behaviour in an organization set up
6	The students got familiarize with the recent advancements in business administration and developed understanding about tools and their application in the business.

7	Students learnt the actual research process of the business organization

(2024Pattern)

Course Outcomes: B. Com. (NEP Pattern)				
Sr. No.	**Class**	**Sem.**	**Subject with Code**	**Outcome**
1	F. Y. B. Com. (NEP-2020)	I	DSC-II Basics of Cost and Management Accounting and Material Accounting-I	1. Students got knowledge of basic concepts of Cost and Management 2. Students understood the elements and classification of cost. 3. Students can prepare a Cost Sheet, Tender and Quotation.
2	F. Y. B. Com. (NEP-2020)	I	DSC-I Modern Office Management-I	1. Students got acquaint with the concept of modern office and its role. 2. Students understood the conceptions factors affecting selection of place and office layout. 3. Students understood the importance of office automation. 4. Students understood the need of office procedures and standardization of office work.
3	F. Y. B. Com. (NEP-2020)	I	DSC-II Fundamentals of Marketing-I	1. Students got introduced to the basic concepts in Marketing. 2. Students got insight of the basic knowledge of Market Segmentation and Marketing Mix 3. Students could establish link between commerce, business and marketing
4	F. Y. B. Com. (NEP-2020)	I	SEC- Business Accounting-I	1. Students understood the concepts of the financial accounting and partnership accounts. 2. Students got the knowledge of accounting principles, concepts, conventions, and partnership accounts. 3. Students understood the applicability of accounting principles, concepts,conventions, partnership accounts, and partnership accounts.
5	F. Y. B. Com. (NEP-2020)	II	DSC-IV Inventory, Labour, and Overhead Accounting-II	1. Students gained knowledge about the different methods of inventory control 2. Students can calculate EOQ, stock levels and inventory ratio 3. Students understood the concept of payroll and developed skills of calculation of labour turnover
6	F. Y. B. Com.(NEP-2020)	II	DSC-III Principles and Functions of Management	1. Students learned the importance of management principles. 2. An understanding is created about various functions of management. 3. Students were provided with tools and techniques to be used in the performance of the

				managerial job. the cost.
7	F. Y. B. Com. (NEP-2020)	II	DSC-IV Fundamental of Marketing -II	1. Students got knowledge about marketing and the selling process. 2. Students learned the market segmentation and the marketing mix. 3. Students can build a connections between commerce, business, and marketing principles.
8	F. Y. B. Com. (NEP-2020)	II	SEC - Business Mathematics – II	1. Students got To develop a strong foundation in fundamental mathematical concepts. 2. Students learned to apply mathematical techniques to solve real – world business problems. 3. Students understood the application of ascertaining profit and loss from business transactions

(2019Pattern)

Course Outcomes: B. Com.. (Non NEP Pattern)				
Sr. No.	**Class**	**Sem.**	**Subject with Code**	**Outcome**
1	S. Y. B. Com.	III	231 - Business Communication I	1. Students understood the concept, process and importance of communication. 2. Students acquired and developed good communication skills requisite for business correspondence. 3. Students developed awareness regarding new trends in business communication
2	S. Y. B. Com.	III	232 - Corporate Accounting I	1. The students are enabled to develop awareness about Corporate Accounting in conformity with the provisions of Companies Act and Accounting as per Indian Accounting Standards. 2. The students have learned about the conceptual aspect of corporate accounting and skills for Computerized Accounting 3. The students are capable to implement their skills about accounting standards 4. Students were updated with knowledge for preparation of final accounts of a company as per Schedule III of the Companies Act 2013
3	S. Y. B. Com.	III	234 - Business Management-I	1. Students upgraded with the basic knowledge & understanding about business management concept. 2. Help was provided to the students to develop cognizance of the importance of management principles.

4	S. Y. B. Com.	III	235 - Elements of Company Law	1. Students imparted with the knowledge of fundamentals of Company Law. 2. The knowledge of students updated regarding the provisions of the Companies Act of 2013. 3. The knowledge of students improved regarding new concepts involving in company law regime.
5	S. Y. B. Com.	IV	241 - Business Communication II	1. Students aware regarding new trends in business communication. 2. Students were provided with knowledge of various media of communication. 3. Students upgraded with the knowledge of various media of communication. 4. Students developed with various skills of business communication through the application and exercises.
6	S. Y. B. Com.	IV	242 - Corporate Accounting I	1. Students are empowered with skills to interpret the financial statements in simple and summarized manner for effective decision making process 2. Students got acquaint with knowledge about various concepts , Objectives and applicability of some important accounting standards associated with corporate accounting. 3. An understanding among the students was developed on the difference between commencement and incorporation of a company and the accounting treatment for transactions during the two phases.
7	S. Y. B. Com.	IV	244 - Business Management-II	1. Students understood various functions of management 2. Students were provided with tools and techniques to be used in the performance of the managerial job.
8	S. Y. B. Com.	IV	245 - Elements of Company Law	1. Students acquainted with the duties and responsibilities of Key Managerial Personnel. 2. Students imparted with the provisions and procedures under company law 3. The capacity of the learners is enhanced to seek the career opportunity in corporate sector.
9	T. Y. B. Com.	V	351 Business Regulatory Framework	1. Students grasped the detailed information regarding the basic concepts, terms & provisions of Mercantile and Business Laws. 2. Awareness improved among the students regarding these laws affecting business, trade and commerce.
10	T. Y. B. Com.	V	352 Advanced Accounting	1. Imparted the knowledge of various accounting concepts 2. The knowledge about accounting procedures, methods and techniques has installed.

11	T. Y. B. Com.	V	354- Auditing	1. The students got acquaint with the concept and principles of Auditing, Audit process, Assurance Standards, Tax Audit, and Audit of computerized Systems. 2. They got knowledge about preparation of Audit report.
12	T. Y. B. Com.	VI	361 Business Regulatory Framework	1. Students were provided with conceptual knowledge about the framework of business Law in India. 2. Students were oriented about the legal aspect of business.
13	T. Y. B. Com.	VI	362 Advanced Accounting	1. Students got acquainted with practical approach to accounts writing by using software package. 2. Students are empowered with skills to prepare the investment account in simple and summarized manner.
14	T. Y. B. Com.	VI	364 Taxation	1. Students understood the basic concepts and to acquire knowledge about Computation of Income, Submission of Income Tax Return, Advance Tax, and Tax deducted at Source, Tax Collection Authorities under the Income Tax Act, 1961. 2. Students are trained to file income tax return in online mode.
Course Outcomes: M. Com. (NEP-2024 Pattern)				
Sr. No.	**Class**	**Sem.**	**Subject with Code**	**Outcome**
15	M. Com. I	I	MA501MJ Management Accounting	1) Students understood importance of management accounting and functions of Management Accounting. 2) Students understood various decision-making techniques of marginal costing and its application in modern business. 3) Product Pricing decision-making capacity of the students has been developed. 4) Learners have prepared various budgets independently
16	M. Com. I	I	IE502M J Industrial Economics	1. Learners are acquainted with the concepts of industrial economics 2. The learners got exposed to recent changes in industrial finance, measures to correct industrial imbalance etc. 3. The students have identified the location of industries and the concepts associated therewith 4. The learners are aware of the industrial profile of Maharashtra 5. The students have developed an ability to apply and interpret the concepts of industrial economics
17	M. Com. I	I	RM529MJ Research	1. Students have understood research process and can explore various ethical issues and modern practices in

			Methodology	research. 2. Students gained fundamental knowledge about Methods of Data Collection and formulating questionnaire. They understood the process of Analysis and Interpretation of data. 3. Students grasped knowledge on developing the most appropriate methodology for their research studies 4. Students developed knowledge on how to write a research report by using different research methods and techniques.
18	M. Com. I	II	FA551MH Financial Analysis & Control.	1. Students acquired sound knowledge of concepts, methods and techniques of management accounting and the students developed for competence with their usage in managerial decision making and control 2. Students learned to analyse the financial information for decision-makings.
19	M. Com. I	II	ST552MJ Strategic Management	1. Students understood the concept and process of strategic management. Emergence of changes in modern business environment will be learn be them. 2. Students developed strategic analytical skills to design an effective strategic plan. They gained technical and managerial skills in various areas of business administration. 3. Students learned Development of Applicability skills for effective plan implementation. They will gain technical skills required for evaluation of alternatives and analytical skills for choice among alternatives 4. Students have a strong foundation in understanding the formulation of sound functional Strategy in various areas of business. They developed Analytical and Managerial Abilities for critical evaluation.
20	M. Com. II	III	BF601MJ - Business Finance	1. Students got acquainted with corporate finance required for Indian industries. 2. Students got aware about the latest developments in the field of corporate finance. 3. Students understood the traditional theories of capitalization and dividend distribution practices.
21	M. Com. II	III	RP634MJT - Research Project	1. The students got acquaint with the areas of Business Research Activities. 2. The students enhanced capabilities to conduct the research in the field of business and social sciences. 3. The students got enable in developing the most appropriate methodology for their research studies.
22	M. Com. II	IV	CMFS651MJ – Capital Market and Financial	1. Students learned working of capital market. 2. Students got aware about the latest developments in the field of capital market in

			Services	India. 3. Students understood various transactions in stock exchanges and agencies involved in it.
23	M. Com. II	IV	IBE652MJ - Introduction of Behavioural Economics	1. Students understood the origin of economics 2. Students learned the relationship between economics and other discipline. 3. Students got introduced to microeconomic concepts, theory and Laws. & simple mathematical equations

3)FACULTY OF SCIENCE

1	**DEPARTMENT OF CHEMISTRY**
2	**DEPARTMENT OF BOTANY**
3	**DEPARTMENT OF PHYSICS**
4	**DEPARTMENT OF ZOOLOGY**
5	**DEPARTMENT OF MATHS**
6	**DEPARTMENT OF COMPUTER SCIENCE**

1) DEPARTMENT OF CHEMISTRY

PROGRAM OUTCOME(UG)
(2019Pattern)

PO-01	To do Bachelors' in the basic areas of the discipline.
PO-02	To apply their broad knowledge of science across a range of fields, with in-depth knowledge in at least one area of study.
PO-03	To articulate the methods of science and explain why current scientific knowledge is both contestable and testable by further inquiry.
PO-04	To apply appropriate methods of research, investigation and design, to solve problems in science, including the planning and/or conduct of a significant project, problem or investigation.
PO-05	To recognize the need for information; effectively search for, evaluate, manage and apply that information in support of scientific investigation.
PO-06	Employ highly developed conceptual, analytical, quantitative and technical skills and are adept with a range of technologies.
PO-07	To evaluate the role of science, in addressing current issues facing local and global communities, for example climate change, health and disease, food security, sustainable energy use etc.
PO-08	To work effectively in groups to meet a shared goal with people who's disciplinary and cultural backgrounds differ from their own.
PO-09	To communicate clearly and convincingly about science ideas, practice and future contributions to expert and non-expert audiences, matching the mode of communication to their audience.

(2024Pattern)

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PROGRAM OUTCOME(PG)

PO-01	Learn the terms, theories, assumptions, methods, principles, theorem statements and classification, Disciplinary knowledge
PO-02	Fix out the problem and resolve it using theories and practical knowledge, Critical thinking and Problem solving
PO-03	Analyze and interpret ideas, evidences and experiences with learned scientific reasoning, Scientific reasoning
PO-04	Aware and implement the subject facts that can be applied for the personal and social development, Reflective thinking
PO-05	Use digital literacy to retrieve and evaluate subject related information, Information/Digitally literacy
PO-06	Get moral and ethical values for society as well as in research, Moral and ethical awareness
PO-07	Give analytical reasoning to interpret research data, Analytical Reasoning
PO-08	Improve their managerial skills and abilities in subject related activities, Leadership readiness/qualities

PO-09	Inculcate continuous learning habit through all available resources, Lifelong readiness/qualities
PO-10	Learn the terms, theories, assumptions, methods, principles, theorem statements and classification, Disciplinary knowledge
PO-11	Fix out the problem and resolve it using theories and practical knowledge, Critical thinking and Problem solving
PO-12	Analyze and interpret ideas, evidences and experiences with learned scientific reasoning, Scientific reasoning
PO-13	Aware and implement the subject facts that can be applied for the personal and social development, Reflective thinking
PO-14	Use digital literacy to retrieve and evaluate subject related information, Information/Digitally literacy
PO-15	Get moral and ethical values for society as well as in research, Moral and ethical awareness
PO-16	Give analytical reasoning to interpret research data, Analytical Reasoning
PO-17	Improve their managerial skills and abilities in subject related activities, Leadership readiness/qualities
PO-18	Inculcate continuous learning habit through all available resources, Lifelong readiness/qualities

PROGRAM SPECIFIC OUTCOME(UG)
(2019Pattern)

PSO-1	To have post graduate education in chemistry after B.Sc. Chemistry.
PSO-2	To use modern library search tools to locate and retrieve scientific information about a topic, chemical, chemical technique, or an issue relating to chemistry.

PSO-3	To understand the objective of their chemical experiments, properly carry out the experiments, and appropriately record and analyze the results.
PSO-4	To use standard laboratory equipment, modern instrumentation, and classical techniques to carry out experiments.
PSO-5	To follow the proper procedures and regulations for safe handling and use of chemicals.
PSO-6	To communicate the concepts and results of their laboratory experiments through effective writing and oral communication skills.
PSO-7	To pursue their career objectives in advanced education in professional and in a scientific career in government or industry, in a teaching career in the school systems, or in a related career following graduation.

(2024Pattern)

PSO-1	To have post graduate education inchemistry after B.Sc. Chemistry.
PSO-2	To use modern library search tools to locate and retrieve scientific information about a topic, chemical, chemical technique, or an issue relating to chemistry.
PSO-3	To understand the objective of their chemical experiments, properly carry out the experiments, and appropriately record and analyze the results.
PSO-4	To use standard laboratory equipment, modern instrumentation, and classical techniques to carry out experiments.
PSO-5	To follow the proper procedures and regulations for safe handling and use of chemicals.
PSO-6	To communicate the concepts and results of their laboratory experiments through effective writing and oral communication skills.

PSO-7	To pursue their career objectives in advanced education in professional and in a scientific career in government or industry, in a teaching career in the school systems, or in a related career following graduation.

PROGRAM SPECIFIC OUTCOME (PG)

PSO-1	**Disciplinary knowledge** Demonstrate a comprehensive knowledge of all disciplines.
PSO-2	**Critical thinking** To assess and evaluate facts, claims and arguments using their scientific knowledge
PSO-3	**Research-related skills** To define a problem, analyses, interpret and draw conclusion by planning, implementing and reporting the results of an experiment.
PSO-4	**Information/digital literacy** To access, evaluate and apply a variety of useful sources
PSO-5	**Multicultural competence** To participate in multicultural society and communicate the subject knowledge for the betterment of society
PSO-6	**Lifelong learning** To acquire knowledge and skills including ―Learning how to learn‖ that are necessary in learning activities throughout life
PSO-7	**Disciplinary knowledge** Demonstrate a comprehensive knowledge of all disciplines.
PSO-8	**Critical thinking** To assess and evaluate facts, claims and arguments using their scientific knowledge
PSO-9	**Research-related skills** To define a problem, analyses, interpret and draw conclusion by planning, implementing and reporting the results of an experiment.
PSO-10	**Information/digital literacy** To access, evaluate and apply a variety of useful sources

PSO-11	**Multicultural competence** To participate in multicultural society and communicate the subject knowledge for the betterment of society
PSO-12	**Lifelong learning** To acquire knowledge and skills including ―Learning how to learn‖ that are necessary in learning activities throughout life

COURSE OUTCOME(UG)

(2024 Pattern)

SN	Class	Sem	Subject with Code	COURSE OUTCOME
1	**F. Y.B. Sc. Chemistry**	1st	**CHE-101: Fundamental Chemistry I**	✓ After completing the course work learner will be acquired with knowledge ofEssentials of Analytical Chemistry, Atomic Structure, Essentials of organic chemistry and Catalysis and Surface chemistry.
2		1st	**SEC-101-CHE (A)-T: Chemistry Laboratory Skills – I**	✓ know the Lab Safety ✓ demonstrate laboratory apparatus, equipments, reagents and laboratory techniques. ✓ prepare reagents and solutions of various concentrations. ✓ explain standard safety guidelines, apparatus, reagents, solvents, solutions and laboratory techniques. ✓ prepare solutions of various concentrationsdesign safe methods for laboratory techniques.
3		1st	**OE-101-CHE (A)-T: Kitchen and Daily Life Chemistry**	✓ Students will learn Macromolecules in Food, Chemistry of Cooking, Classification and sources of nutrients, Food additives and : Chemistry in the Medicine.
4		1st	**Lab Course (Practical) CHE-102**	✓ acquire basic knowledge of experiments of including adsorption, organic qualitative analysis, and inorganic preparations and estimations. ✓ utilize theoretical concepts to perform experiments, interpret data, and formulate conclusions. ✓ foster critical thinking abilities to assess and enhance the reliability and accuracy of experimental findings. ✓ report scientific findings of laboratory experiments.

				✓ evaluate experimental outcomes to draw insightful conclusions.mdevelop problem-solving skills
5		2nd	**CHE-151-T: Fundamentals of Chemistry-II**	✓ recall and explain the fundamental principles and concepts from Photochemistry, Chemical Kinetics, Periodicity, Stereochemistry, and Chemical Bonding. identify experimental key concepts involved in Photochemistry, Chemical Kinetics, Periodicity, Stereochemistry, and Chemical Bonding. ✓ draw conclusions about reaction mechanisms, kinetics, periodic trends, stereochemical relationships, and bonding properties. ✓ apply the principles of Photochemistry, Chemical Kinetics, Periodicity, Stereochemistry, and Chemical Bonding to solve complex problems and scenarios. ✓ evaluate the significance of photochemical reactions, kinetic processes, periodicity, bonding theories like VBT and MOT and stereochemical structures. propose solutions, and contribute to the advancement of scientific knowledge applications.
6		2nd	**SEC-151-CHE (A)-T: Chemistry Laboratory Skills – II**	✓ Students will know about basics of analytical chemistry, some techniques of analysis and able to do calculations essential for analysis.practical methods of quantitative analysis.
7		2nd	**OE-151-CHE (A)-T: Chemistry for Competitive Examination – II**	✓ Define the terms matter, atom, chemical bond, valency, dipole moment, hydrogen bond, oxidation, reduction, acid, base, catalysis, solution, element, metal, isomerism, polymer, rubber, explosives, drugs, etc. ✓ Describe structure of atom, chemical bonding, Chemical symbol, formula and equation, Periodic classification of elements. ✓ Explain the terms catenation, Petroleum, Allotrops, Polymers, Rubbers, Explosives, Drugs & chemicals, latent heat, specific heat capacity ✓ Distinguish between the metal and nonmetal, VBT and MOT, acid and bases, oxidation and reduction, etc. ✓ Classify chemical bond, polymers, explosives, rubber, Matter, elements, Drugs. ✓ Give uses of polymers, explosives, rubber, petroleum, Drugs and chemical, pesticide, insecticide, fungicide, herbicide, etc.
8		2nd	**Lab Course (Practical) CHE-152**	✓ acquire basic knowledge of experiments of including adsorption, organic qualitative analysis, and inorganic preparations and estimations. ✓ utilize theoretical concepts to perform experiments, interpret data, and formulate conclusions. ✓ foster critical thinking abilities to assess and enhance the reliability and accuracy of experimental findings. ✓ report scientific findings of laboratory experiments. ✓ evaluate experimental outcomes to draw insightful

				conclusions.develop problem-solving skills
9	S.Y. B. Sc. (CBCS Pattern)	1st	**CH-301: Physical & Analytical Chemistry Paper-I**	✓ Concept of chemical kinetics and related terms (rate laws, molecularity, order, energy of activation, factors affecting rate of reaction, integrated rate laws). ✓ Characteristics of zero, first, and second order reactions. ✓ Order of reaction by integrated rate equation method, graphical method, half-life method and differential method. ✓ Arrhenius equation, collision theory and transition state theory of bimolecular reaction and its applications. ✓ Concept of adsorption, classification, factors affecting adsorption. Langmuir adsorption isotherm, Freundlich adsorption Isotherm, BET theory and application of adsorption. ✓ Concept of accuracy and precision. Methods of expressing the errors in analysis from results and different terms related to errors in quantitative analysis. ✓ Concept of volumetric analysis and related terms (concentration, indicator, equivalence point, end point, standard solutions, primary and secondary standards, complexing agent, precipitating agent, oxidizing agent, reducing agent, redox indicators, acid base indicators, metallochome indicators, etc.). ✓ Preparation of standard solution and perform standardization of solutions. ✓ To construct acid – base titration curves and select proper indicator for particular titration (acid-base titrations, complexometric titration / precipitation titration / redox titration).
10		1st	**CH-302: Inorganic & Organic Chemistry Paper-II**	✓ Terms related to molecular orbital theory (AO, MO, sigma & pi bond, bond order, magnetic property etc.). ✓ Application of LCAO principle for the formation of different types of MO's from AO's. ✓ Distinction between AO and MO, bonding, anti-bonding and non-bonding molecular orbitals. ✓ MO energy level diagrams for homo and hetero diatomic molecules. ✓ Bond order, magnetic property and stability of molecule on the basis of bond order. ✓ Terms related to the coordination chemistry (double salt, coordination compounds, coordinate bond,

				ligand, central metal ion, complex ion, coordination number, magnetic moment, crystal field stabilization energy, types of ligand, chelate effect, etc.) ✓ Werner's theory of coordination compounds, distinction between primary and secondary valency. ✓ Coordination number and structure of complex ion. IUPAC nomenclature of coordination compound. ✓ Aromatic hydrocarbons/alkyl and aryl halides/ alcohols/ phenols and ethers from their names or from structure, name can be assigned. Synthesis/ important reactions of expected aromatic hydrocarbons/Alkyl and aryl halides/ Alcohols/ Phenols and ethers. Mechanism of reactions involved and differentiate between alcohols and phenols
11		1st	**CH-303:** **Practical Chemistry Paper-III**	✓ Verification of theoretical principles by experiment observations and interpret practical output with the help of theoretical principles. ✓ Methods of identification of substance by chemical methods. ✓ To write and verify balanced equation for the chemical reactions performed in the laboratory. ✓ Different reactions of organic and inorganic synthesis and follow the progress of the chemical reaction by suitable method (colour change, ppt. formation, TLC). ✓ To arrange and set the apparatus for the desired experiments. ✓ Quantitative chemical analysis of substances & explain principles behind it. ✓ Systematic working skill in the laboratory.

SN	Class	Sem	Subject with Code	COURSE OUTCOME
12		4th	**CH-401: Physical & Analytical Chemistry Paper-**	✓ The term phase equilibria, components in phase system, degree of freedom and phase rule, etc. ✓ Types of equilibrium such as true or static, metastable and unstable equilibrium. ✓ Phase rule relationship and typical features for i) Water system ii) Carbon dioxide system iii) Sulphur system. ✓ Ideal and no-ideal solutions, their thermodynamic aspects such as Gibbs free

				energy change, volume change, enthalpy and entropy change of mixing. ✓ Raoult's law, Interpretation of i) vapour pressure–composition diagram ii) temperature- composition diagram. Explain azeotropes, Lever rule, Henrys law and its application. ✓ Solubility of partially miscible liquids-systems with upper **c**ritical solution temperature, lower critical solution temperature. Concept of distribution of solute amongst pair of immiscible solvents. ✓ Terms in conductometry, Kohlrausch's law and its Applications, Conductometric titrations and their applications in conductometric methods of analysis. ✓ Terms in Colorimetry, Construction and working of colorimeter. Applications of colorimetric methods in analysis. Terms in column chromatography, Applications of column chromatographic process in analysis.
13		4^{th}	**CH-402: Inorganic & Organic Chemistry Paper-II**	✓ Different types of coordination complexes and isomerism in them. ✓ Application of VBT to explain bonding in coordination compound of different geometries & limitation of VBT. ✓ Correlate no of unpaired electrons and orbitals used for bonding, inner and outer orbital complexes, ✓ Principle of crystal field theory (CFT) and its applications to different type of complexes (Td, Oh, Sq. Pl complexes). ✓ Magnetic properties of coordination compounds on the basis of weak and strong ligand field ligand concept. Origin of colour of coordination complex. ✓ Calculation of field stabilization energy and magnetic moment for various complexes. ✓ To identify Td and Sq. Pl complexes on the basis of magnetic properties / unpaired electrons.

				✓ Spectrochemical series, tetragonal distortion / Jahn-Teller effect in Cu(II) Oh complexes. ✓ To draw structures of different aldehydes/ketones/carboxylic acids and their derivatives/ amines from their names or name can be assigned from structure. ✓ Synthesis of expected compounds, inter conversion of functional groups, important reaction and their mechanism, synthesis of diazonium salt from amines and their reactions. ✓ Structures of different conformations of cyclohexane (terms like axial and equatorial hydrogen, confirmation, substituted cyclohexane, etc.) ✓ Conformation of cyclohexane, their interconversion, stability with respect to potential energy. ✓ Cis-trans conformations of methyl / t-butyl monosubstituted cyclohexane (axial, equatorial) and 1, 2 dimethyl cyclohexane and their stability.
14		4th	**CH-403: Practical Chemistry Paper-III**	• Verification of theoretical principles by experiment observations and interpret practical output with the help of theoretical principles. • Methods of identification of substance by chemical methods. • To write and verify balanced equation for the chemical reactions performed in the laboratory. • Different reactions of organic and inorganic synthesis and follow the progress of the chemical reaction by suitable method (colour change, ppt. formation, TLC). • To arrange and set the apparatus for the desired experiments. • Quantitative chemical analysis of substances & explain principles behind it. ✓
15	T.Y. B. Sc. (CBCS Pattern) DSEC I	5th	CH-501: Physical Chemistry-I	✓ Concept of quantization, wave particle duality, Uncertainty principle and its physical significance, Schrodinger wave equation, Wave function and its Interpretation, Degeneracy and application. ✓ Additive and constitutive properties, electrical polarization of molecule, induced

				and orientation polarization, dipole moment ,nature of wave Rotational / Microwave spectroscopy , Vibrational Spectra , Vibrational rotational Spectra , Raman Spectroscopy and Solve the numerical problems. ✓ Thermal and photochemical processes, photochemical laws, Quantum Photochemical reactions and various photochemical phenomena and are able to solve problems.
16		5th	CH-502: Analytical Chemistry-I	✓ Gravimetric and thermal methods of analysis, basic concepts of spectrophotometry, parameters in instrumental analysis and qualitative analysis.
17		5th	CH-503: Physical Chemistry Practical-I	✓ The molecular weight of polymer by using Ostwald viscometer. ✓ Different instrument like pH meter, Spectrophotometry, colorimeter, photoflurometer etc. and are able to determine different parameters. ✓ Students can develop the technique to analysis of the given vibration-rotation spectrum of HCl(g)
18	T.Y. B. Sc. (CBCS Pattern) **DSEC-II**	5th	CH-504: Inorganic Chemistry-I	✓ Understand the theoretical concepts behind organic synthesis. Terms involved in coordination chemistry, Werner's theory of coordination complexes, limitations of VBT, shapes and degeneracy of d-orbital's, geometrical and optical isomerism of complexes, p-type and n-type semiconductor
19		5th	CH-505: Industrial Chemistry	✓ Importance and basic requirements of chemical, sugar and fermentation industry. ✓ Importance of food starches, basic chemical, molasses and bagasse, manufacture of dyes, glass, soap and detergents by modern methods, various pharmaceutical drugs, their application and synthesis. ✓ Function of dyes, paints and pigments, various type of surfactants.

20		5th	CH-506: Inorganic Chemistry Practical-I	✓ Gravimetric analysis of ores and alloy. Preparation of various inorganic complex and their % purity. ✓ Removal of borate and phosphate from inorganic binary mixtures. Chromatographic techniques
21	T.Y. B. Sc. (CBCS Pattern) **DSEC-III**	5th	CH-507: Organic Chemistry-I	✓ Meaning, structure, synthesis and reactions of polynuclear and heteronuclear aromatic compounds. ✓ Synthesis and synthetic applications of active methylene compounds. ✓ Types of reactive intermediate and mechanism of different rearrangement reactions. ✓ Different types of elimination reactions with their mechanism, stereochemistry, orientation and reactivity of geometrical isomers
22		5th	CH-508: Chemistry of Biomolecules	✓ Types of cell, difference between bacterial, plant and animal cell. ✓ Biological composition and organization of cell membrane, structure and function of various cell organelles of plant and animal cell. ✓ Types, structure, reactions and biochemical significance of carbohydrates (glucose). Types, structure and properties of lipids and amino acids. ✓ Types and structural features of proteins. Effect of pH on structure of amino acid. Different classes and features of various types of enzyme inhibitions, their industrial applications. ✓ Concept of endocrinology, different types of endocrine glands and their hormones. Biochemical nature, mechanism of action of lipophilic and hydrophilic hormones.
23		5th	CH-509: Organic Chemistry Practical-I	✓ Separation of organic binary mixture and its qualitative analysis. ✓ Preparation of dibenzalpropanone, nitration of phenol and bromination of acetamide by green synthesis route. ✓ Preparation of 1,4-dihydropyrimidone, p-Iodonitrobenzene and p-Chloro benzoic acid. ✓ Preparation of organic derivative of carboxylic acid, glucose and p-Aminophenol.
24	T.Y. B. Sc. (CBCS Pattern) **SEC-I**	5th	CH-510: Polymer Chemistry	✓ History, name and various ways of nomenclature of polymers. Difference between natural, synthetic, organic and inorganic polymers. ✓ Degree of polymerization, Functionality, Number average, Weight average molecular weight. Mechanisms of polymerization, polymerization techniques. Uses & properties of polymers, role of polymer industry in the economy, advantages of polymers.
25	T.Y. B. Sc. (CBCS Pattern) **SEC-II**	5th	CH-511: Environmental Chemistry	✓ The importance and conservation of environment and biogeochemical cycles. ✓ About the Water resources, hydro-logical cycle, organic and inorganic pollutants present in the water and water quality parameters.

				✓ The analytical techniques in water analysis, different types of water pollution and water treatments. ✓ About the solid waste management and water preservation. ✓
26	T.Y. B. Sc. (CBCS Pattern) **DSEC-IV**	6th	CH-601 Physical Chemistry-II	✓ Types and emf of cells, reference electrode, Nernst equation, thermodynamic parameters, equilibrium constant K of the cell reaction, liquid junction potential. ✓ Classification of electrochemical cell, redox titrations, fuel cells and their applications. ✓ Crystalline and amorphous solids / anisotropic and isotropic solid, laws of crystallography, Weiss and Millers Indices, Crystal system different planes, Bragg's experiment. ✓ Structure of NaCl Laue's and Bragg's method, applications and solve the numerical problems ✓ Classification of nuclides, decay kinetics, measurement of radioactivity, application of radioisotopes and solve the numerical problems based on this topic.
27		6th	CH-602 Physical Chemistry-III	✓ The terms-Solution, electrolytes, nonelectrolytes and different colligative properties. ✓ Vant Hoff's factor and degree of dissociation of electrolyte by colligative property. ✓ Chemical kinetics; reaction rates applications of chemical kinetics. Cohesive energy of ionic crystals, correspondence between energy levels in the atom and energy bands in solid. ✓ Band structure in conductors and insulators, its correlation, photoconductivity, semiconductors, cohesive energy in metals. ✓ History of polymers, classification, chemical bonding, molecular forces molecular weight of polymers and determination.
28		6th	CH-603 Physical Chemistry Practical-II	✓ Determination of plateau voltage, resolving time of GM counter and Emax of beta particle. ✓ Handling of different instrument like pH meter, conductivity meter, turbidometer etc. and determine different parameters. ✓ Determination of various colligative properties and analysis of crystal structure from X-ray diffraction spectra.
29	T.Y. B. Sc. (CBCS Pattern) **DSEC-V**	6th	CH-604 Inorganic Chemistry-II	✓ Meaning and importance of organometallic compounds in the homogenous catalysis. ✓ Bio-inorganic chemistry, types of inorganic polymers and preparation of inorganic solids by various methods.
28		6th	CH-605 Inorganic Chemistry-III	✓ Crystalline solids. Acid-base theories. Toxicity of chemicals in the environment and their impact on enzyme. ✓ Different zeolite framework types, classification, synthesis and structure. ✓ Various methods of nanoparticle synthesis
30		6th	CH-606 Inorganic Chemistry Practical-II	✓ Gravimetric and volumetric analysis of ores and alloy. ✓ Importance of flame photometry, column chromatography techniques for estimation and

				purification respectively. Synthesis of Nanomaterial. ✓ Verification of periodic trends using solubility of alkaline earth metal hydroxides.
31	T.Y. B. Sc. (CBCS Pattern) **DSEC-VI**	6th	CH-607 Organic Chemistry-II	✓ Nature of interactions between different regions of the electromagnetic radiation and organic molecules. ✓ Principles of UV-Visible, Infra-red, NMR and Mass spectroscopy and nature of UV, IR, NMR and Mass spectrum. ✓ Different types of electronic transitions, maximum wavelength, fundamental modes of vibrations, functional group frequency, finger print region, types of protons, measurement of chemical shift, coupling constants etc. ✓ Structure elucidation of organic molecule on the basis of spectral data. ✓ Stereochemistry, geometrical isomers, energy calculations and optical activity of different conformers of disubstituted cyclohexane and decalin.
32		6th	CH-608 Organic Chemistry-III	✓ Retrosynthetic analysis and synthesis of acetophenone, crotonaldehyde, cyclohexene, benzyl benzoate and benzyl diethyl malonate. ✓ Reaction mechanism and synthetic applications of Wolff rearrangement, Hofmann rearrangement, Simmons-Smith, Michael, Wittig, McMurry and Diels-Alder reactions. ✓ Use of different oxidizing and reducing agents for specific purpose. ✓ Extraction/Isolation, Classification of terpenoids and alkaloids. Structure determination by chemical and spectral methods. Synthesis of Citral and Ephedrine.
33		6th	CH-609 Organic Chemistry Practical-II	✓ Functional group from given IR spectra and structure from NMR spectra of organic compound. ✓ Estimation of glucose, glycine, Alkali content in antacid and saponification value of oil volumetrically. ✓ Extraction of caffeine from tea leaves, Eugenol form cloves, lycopene from tomato peels, cinnamic acid from cinnamon and Trimyristin from nutmeg. ✓ Separation of mixture of aldehyde and carboxylic acid, o-nitrophenol and p-nitrophenol by column chromatography.
34	T.Y. B. Sc. (CBCS Pattern) **SECIII**	6th	CH-610 Chemistry of Soil and Agrochemicals	✓ Agriculture chemistry with it's potential, basic concept of soil, its properties&classification on the basis of pH. ✓ The different plant nutrients, their functions and deficiency symptoms,various techniques to protect the plants. ✓ The problematic soil and recommend method for their reclamation. ✓ The quality irrigation water, quality standard and analysisof irrigation water. ✓ About different pesticides, their nature and, mode of action and their fate in soil so as to monitor their effect on the environment.

				✓ Various nutrient management concepts and Nutrient use efficiencies of major and micro nutrients and enhancement techniques.
35	T.Y. B. Sc. (CBCS Pattern) **SEC-VI**	6th	CH-611 Analytical Chemistry-II	✓ The basic concepts of solvent extraction, basics of chromatography, ✓ Principle, instrumentation and uses of HPLC, GC and AAS.

(2019Pattern)

S N	Class	Sem	Subject with Code	COURSE OUTCOME
1	**F. Y.B. Sc. Chemistry**	1st	CH-101: Physical Chemistry	✓ The principles of thermodynamics & calculation of different types of energies. Exothermic and endothermic reactions. ✓ Third law of thermodynamics and its application. ✓ Different salts, their pH value and preparation of buffer solution. ✓ Concept of common ion effect, ionic product, solubility product, hydrolysis constant, etc
2		1st	**CH-102: Organic Chemistry**	✓ The fundamental principles of organic chemistry, nomenclatures, stereochemistry (Conformations and configurations) of organic compounds. ✓ Different functional groups in organic chemistry.
3		1st	**CH-103: Practical Chemistry**	✓ The importance of chemical safety and Lab safety while performing experiments in laboratory. ✓ Thermochemical parameters and related concepts. ✓ Importance and techniques of pH measurements and preparation of buffer solutions. ✓ Elemental analysis of organic compounds and chromatographic techniques for separation of constituents of mixtures.
4		2nd	**CH-201: Inorganic Chemistry**	✓ Different theories and principles applied to revel atomic structure. ✓ Significance of quantum chemistry. Aufbau principle, Pauli Exclusion Principle. ✓ Hund's rule of maximum multiplicity and Electronic configuration.

				✓ Classification, name, symbol, electronic configuration, periodic trends in properties of elements. ✓ Types of chemical bonds- Ionic, covalent, coordinate and metallic bond. ✓ Valence Bond Theory, its application and also the need of VSEPR theory.
5		2nd	**CH-202: Analytical Chemistry**	✓ Concept of mole concentrations, units of concentrations, preparation of solutions of different concentrations. ✓ Stoichiometric calculation, terms like ppm, ppb, ppt, density and specific gravity. Basics and types of chromatography. ✓ Working and application of pH meter. ✓ Classification, separation and analysis of binary mixture.
6		2nd	**CH-203: Practical Chemistry**	✓ Inorganic volumetric analysis and synthesis of Inorganic compounds. ✓ Chemical analysis of commercial products. ✓ Preparations and purification of organic compounds.
7	S.Y. B. Sc. (CBCS Pattern)	1st	**CH-301: Physical & Analytical Chemistry Paper-I**	✓ Concept of chemical kinetics and related terms (rate laws, molecularity, order, energy of activation, factors affecting rate of reaction, integrated rate laws). ✓ Characteristics of zero, first, and second order reactions. ✓ Order of reaction by integrated rate equation method, graphical method, half-life method and differential method. ✓ Arrhenius equation, collision theory and transition state theory of bimolecular reaction and its applications. ✓ Concept of adsorption, classification, factors affecting adsorption. Langmuir adsorption isotherm, Freundlich adsorption Isotherm, BET theory and application of adsorption. ✓ Concept of accuracy and precision. Methods of expressing the errors in analysis from results and different terms related to errors in quantitative analysis. ✓ Concept of volumetric analysis and related terms (concentration, indicator, equivalence point, end point, standard solutions, primary and secondary standards, complexing agent, precipitating agent, oxidizing

				agent, reducing agent, redox indicators, acid base indicators, metallochome indicators, etc.). ✓ Preparation of standard solution and perform standardization of solutions. ✓ To construct acid – base titration curves and select proper indicator for particular titration (acid-base titrations, complexometric titration / precipitation titration / redox titration).
8		1st	**CH-302: Inorganic & Organic Chemistry Paper-II**	✓ Terms related to molecular orbital theory (AO, MO, sigma & pi bond, bond order, magnetic property etc.). ✓ Application of LCAO principle for the formation of different types of MO's from AO's. ✓ Distinction between AO and MO, bonding, anti-bonding and non-bonding molecular orbitals. ✓ MO energy level diagrams for homo and hetero diatomic molecules. ✓ Bond order, magnetic property and stability of molecule on the basis of bond order. ✓ Terms related to the coordination chemistry (double salt, coordination compounds, coordinate bond, ligand, central metal ion, complex ion, coordination number, magnetic moment, crystal field stabilization energy, types of ligand, chelate effect, etc.) ✓ Werner's theory of coordination compounds, distinction between primary and secondary valency. ✓ Coordination number and structure of complex ion. IUPAC nomenclature of coordination compound. ✓ Aromatic hydrocarbons/alkyl and aryl halides/ alcohols/ phenols and ethers from their names or from structure, name can be assigned. Synthesis/ important reactions of expected aromatic hydrocarbons/Alkyl and aryl halides/ Alcohols/ Phenols and ethers. Mechanism of reactions involved and differentiate between alcohols and phenols
9		1st	**CH-303: Practical Chemistry Paper-III**	✓ Verification of theoretical principles by experiment observations and interpret practical output with the help of theoretical principles. ✓ Methods of identification of substance by chemical methods.

				✓ To write and verify balanced equation for the chemical reactions performed in the laboratory. ✓ Different reactions of organic and inorganic synthesis and follow the progress of the chemical reaction by suitable method (colour change, ppt. formation, TLC). ✓ To arrange and set the apparatus for the desired experiments. ✓ Quantitative chemical analysis of substances & explain principles behind it. ✓ Systematic working skill in the laboratory.
10		4th	**CH-401: Physical & Analytical Chemistry Paper-**	✓ The term phase equilibria, components in phase system, degree of freedom and phase rule, etc. ✓ Types of equilibrium such as true or static, metastable and unstable equilibrium. ✓ Phase rule relationship and typical features for i) Water system ii) Carbon dioxide system iii) Sulphur system. ✓ Ideal and no-ideal solutions, their thermodynamic aspects such as Gibbs free energy change, volume change, enthalpy and entropy change of mixing. ✓ Raoult's law, Interpretation of i) vapour pressure–composition diagram ii) temperature- composition diagram. Explain azeotropes, Lever rule, Henrys law and its application. ✓ Solubility of partially miscible liquids- systems with upper **c**ritical solution temperature, lower critical solution temperature. Concept of distribution of solute amongst pair of immiscible solvents. ✓ Terms in conductometry, Kohlrausch's law and its Applications, Conductometric titrations and their applications in conductometric methods of analysis. ✓ Terms in Colorimetry, Construction and working of colorimeter. Applications of colorimetric methods in analysis. Terms in column chromatography, Applications of column chromatographic process in analysis.
11		4th	**CH-402: Inorganic & Organic Chemistry Paper-II**	✓ Different types of coordination complexes and isomerism in them. ✓ Application of VBT to explain bonding in coordination compound of different geometries & limitation of VBT. ✓ Correlate no of unpaired electrons and orbitals used for bonding, inner and outer orbital complexes,

				✓ Principle of crystal field theory (CFT) and its applications to different type of complexes (Td, Oh, Sq. Pl complexes). ✓ Magnetic properties of coordination compounds on the basis of weak and strong ligand field ligand concept. Origin of colour of coordination complex. ✓ Calculation of field stabilization energy and magnetic moment for various complexes. ✓ To identify Td and Sq. Pl complexes on the basis of magnetic properties / unpaired electrons. ✓ Spectrochemical series, tetragonal distortion / Jahn-Teller effect in Cu(II) Oh complexes. ✓ To draw structures of different aldehydes/ketones/carboxylic acids and their derivatives/ amines from their names or name can be assigned from structure. ✓ Synthesis of expected compounds, inter conversion of functional groups, important reaction and their mechanism, synthesis of diazonium salt from amines and their reactions. ✓ Structures of different conformations of cyclohexane (terms like axial and equatorial hydrogen, confirmation, substituted cyclohexane, etc.) ✓ Conformation of cyclohexane, their interconversion, stability with respect to potential energy. ✓ Cis-trans conformations of methyl / t-butyl monosubstituted cyclohexane (axial, equatorial) and 1, 2 dimethyl cyclohexane and their stability.
12		4th	**CH-403: Practical Chemistry Paper-III**	• Verification of theoretical principles by experiment observations and interpret practical output with the help of theoretical principles. • Methods of identification of substance by chemical methods. • To write and verify balanced equation for the chemical reactions performed in the laboratory. • Different reactions of organic and inorganic synthesis and follow the progress of the chemical reaction by suitable method (colour change, ppt. formation, TLC). • To arrange and set the apparatus for the desired experiments. • Quantitative chemical analysis of substances & explain principles behind it.

				✓
13	T.Y. B. Sc. (CBCS Pattern) DSEC I	5th	CH-501: Physical Chemistry-I	✓ Concept of quantization, wave particle duality, Uncertainty principle and its physical significance, Schrodinger wave equation, Wave function and its Interpretation, Degeneracy and application. ✓ Additive and constitutive properties, electrical polarization of molecule, induced and orientation polarization, dipole moment ,nature of wave Rotational / Microwave spectroscopy , Vibrational Spectra , Vibrational rotational Spectra , Raman Spectroscopy and Solve the numerical problems. ✓ Thermal and photochemical processes, photochemical laws, Quantum Photochemical reactions and various photochemical phenomena and are able to solve problems.
14		5th	CH-502: Analytical Chemistry-I	✓ Gravimetric and thermal methods of analysis, basic concepts of spectrophotometry, parameters in instrumental analysis and qualitative analysis.
15		5th	CH-503: Physical Chemistry Practical-I	✓ The molecular weight of polymer by using Ostwald viscometer. ✓ Different instrument like pH meter, Spectrophotometry, colorimeter, photoflurometer etc. and are able to determine different parameters. ✓ Students can develop the technique to analysis of the given vibration-rotation spectrum of HCl(g)
16	T.Y. B. Sc. (CBCS Pattern) **DSEC-II**	5th	CH-504: Inorganic Chemistry-I	✓ Understand the theoretical concepts behind organic synthesis. Terms involved in coordination chemistry, Werner's theory of coordination complexes, limitations of VBT, shapes and degeneracy of d-orbital's, geometrical and optical isomerism of complexes, p-type and n-type semiconductor
17		5th	CH-505: Industrial Chemistry	✓ Importance and basic requirements of chemical, sugar and fermentation industry. ✓ Importance of food starches, basic chemical, molasses and bagasse, manufacture of dyes, glass, soap and detergents by modern methods, various pharmaceutical drugs, their application and synthesis. ✓ Function of dyes, paints and pigments, various type of surfactants.
18		5th	CH-506: Inorganic Chemistry Practical-I	✓ Gravimetric analysis of ores and alloy. Preparation of various inorganic complex and their % purity. ✓ Removal of borate and phosphate from inorganic binary mixtures. Chromatographic techniques

19	T.Y. B. Sc. (CBCS Pattern) **DSEC-III**	5th	CH-507: Organic Chemistry-I	✓ Meaning, structure, synthesis and reactions of polynuclear and heteronuclear aromatic compounds. ✓ Synthesis and synthetic applications of active methylene compounds. ✓ Types of reactive intermediate and mechanism of different rearrangement reactions. ✓ Different types of elimination reactions with their mechanism, stereochemistry, orientation and reactivity of geometrical isomers
20		5th	CH-508: Chemistry of Biomolecules	✓ Types of cell, difference between bacterial, plant and animal cell. ✓ Biological composition and organization of cell membrane, structure and function of various cell organelles of plant and animal cell. ✓ Types, structure, reactions and biochemical significance of carbohydrates (glucose). Types, structure and properties of lipids and amino acids. ✓ Types and structural features of proteins. Effect of pH on structure of amino acid. Different classes and features of various types of enzyme inhibitions, their industrial applications. ✓ Concept of endocrinology, different types of endocrine glands and their hormones. Biochemical nature, mechanism of action of lipophilic and hydrophilic hormones.
21		5th	CH-509: Organic Chemistry Practical-I	✓ Separation of organic binary mixture and its qualitative analysis. ✓ Preparation of dibenzalpropanone, nitration of phenol and bromination of acetamide by green synthesis route. ✓ Preparation of 1,4-dihydropyrimidone, p-Iodonitrobenzene and p-Chloro benzoic acid. ✓ Preparation of organic derivative of carboxylic acid, glucose and p-Aminophenol.
22	T.Y. B. Sc. (CBCS Pattern) **SEC-I**	5th	CH-510: Polymer Chemistry	✓ History, name and various ways of nomenclature of polymers. Difference between natural, synthetic, organic and inorganic polymers. ✓ Degree of polymerization, Functionality, Number average, Weight average molecular weight. Mechanisms of polymerization, polymerization techniques. Uses & properties of polymers, role of polymer industry in the economy, advantages of polymers.
23	T.Y. B. Sc. (CBCS Pattern) **SEC-II**	5th	CH-511: Environmental Chemistry	✓ The importance and conservation of environment and biogeochemical cycles. ✓ About the Water resources, hydro-logical cycle, organic and inorganic pollutants present in the water and water quality parameters.

				✓ The analytical techniques in water analysis, different types of water pollution and water treatments. ✓ About the solid waste management and water preservation. ✓
24	T.Y. B. Sc. (CBCS Pattern) **DSEC-IV**	6th	CH-601 Physical Chemistry-II	✓ Types and emf of cells, reference electrode, Nernst equation, thermodynamic parameters, equilibrium constant K of the cell reaction, liquid junction potential. ✓ Classification of electrochemical cell, redox titrations, fuel cells and their applications. ✓ Crystalline and amorphous solids / anisotropic and isotropic solid, laws of crystallography, Weiss and Millers Indices, Crystal system different planes, Bragg's experiment. ✓ Structure of NaCl Laue's and Bragg's method, applications and solve the numerical problems ✓ Classification of nuclides, decay kinetics, measurement of radioactivity, application of radioisotopes and solve the numerical problems based on this topic.
25		6th	CH-602 Physical Chemistry-III	✓ The terms-Solution, electrolytes, nonelectrolytes and different colligative properties. ✓ Vant Hoff's factor and degree of dissociation of electrolyte by colligative property. ✓ Chemical kinetics; reaction rates applications of chemical kinetics. Cohesive energy of ionic crystals, correspondence between energy levels in the atom and energy bands in solid. ✓ Band structure in conductors and insulators, its correlation, photoconductivity, semiconductors, cohesive energy in metals. ✓ History of polymers, classification, chemical bonding, molecular forces molecular weight of polymers and determination.
26		6th	CH-603 Physical Chemistry Practical-II	✓ Determination of plateau voltage, resolving time of GM counter and Emax of beta particle. ✓ Handling of different instrument like pH meter, conductivity meter, turbidometer etc. and determine different parameters. ✓ Determination of various colligative properties and analysis of crystal structure from X-ray diffraction spectra.
27	T.Y. B. Sc. (CBCS Pattern) **DSEC-V**	6th	CH-604 Inorganic Chemistry-II	✓ Meaning and importance of organometallic compounds in the homogenous catalysis. ✓ Bio-inorganic chemistry, types of inorganic polymers and preparation of inorganic solids by various methods.

28		6th	CH-605 Inorganic Chemistry-III	✓ Crystalline solids. Acid-base theories. Toxicity of chemicals in the environment and their impact on enzyme. ✓ Different zeolite framework types, classification, synthesis and structure. ✓ Various methods of nanoparticle synthesis
29		6th	CH-606 Inorganic Chemistry Practical-II	✓ Gravimetric and volumetric analysis of ores and alloy. ✓ Importance of flame photometry, column chromatography techniques for estimation and purification respectively. Synthesis of Nanomaterial. ✓ Verification of periodic trends using solubility of alkaline earth metal hydroxides.
30	T.Y. B. Sc. (CBCS Pattern) **DSEC-VI**	6th	CH-607 Organic Chemistry-II	✓ Nature of interactions between different regions of the electromagnetic radiation and organic molecules. ✓ Principles of UV-Visible, Infra-red, NMR and Mass spectroscopy and nature of UV, IR, NMR and Mass spectrum. ✓ Different types of electronic transitions, maximum wavelength, fundamental modes of vibrations, functional group frequency, finger print region, types of protons, measurement of chemical shift, coupling constants etc. ✓ Structure elucidation of organic molecule on the basis of spectral data. ✓ Stereochemistry, geometrical isomers, energy calculations and optical activity of different conformers of disubstituted cyclohexane and decalin.
31		6th	CH-608 Organic Chemistry-III	✓ Retrosynthetic analysis and synthesis of acetophenone, crotonaldehyde, cyclohexene, benzyl benzoate and benzyl diethyl malonate. ✓ Reaction mechanism and synthetic applications of Wolff rearrangement, Hofmann rearrangement, Simmons-Smith, Michael, Wittig, McMurry and Diels-Alder reactions. ✓ Use of different oxidizing and reducing agents for specific purpose. ✓ Extraction/Isolation, Classification of terpenoids and alkaloids. Structure determination by chemical and spectral methods. Synthesis of Citral and Ephedrine.
32		6th	CH-609 Organic Chemistry Practical-II	✓ Functional group from given IR spectra and structure from NMR spectra of organic compound. ✓ Estimation of glucose, glycine, Alkali content in antacid and saponification value of oil volumetrically. ✓ Extraction of caffeine from tea leaves, Eugenol form cloves, lycopene from tomato peels, cinnamic acid from cinnamon and Trimyristin from nutmeg. ✓ Separation of mixture of aldehyde and carboxylic acid, o-nitrophenol and p-nitrophenol by column chromatography.

33	T.Y. B. Sc. (CBCS Pattern) **SECIII**	6th	CH-610 Chemistry of Soil and Agrochemicals	✓ Agriculture chemistry with it's potential, basic concept of soil, its properties&classification on the basis of pH. ✓ The different plant nutrients, their functions and deficiency symptoms,various techniques to protect the plants. ✓ The problematic soil and recommend method for their reclamation. ✓ ✓ The quality irrigation water, quality standard and analysisof irrigation water. ✓ About different pesticides, their nature and, mode of action and their fate in soil so as to monitor their effect on the environment. ✓ Various nutrient management concepts and Nutrient use efficiencies of major and micro nutrients and enhancement techniques.
34	T.Y. B. Sc. (CBCS Pattern) **SEC-VI**	6th	CH-611 Analytical Chemistry-II	✓ The basic concepts of solvent extraction, basics of chromatography, ✓ Principle, instrumentation and uses of HPLC, GC and AAS.

COURSE OUTCOME (PG)

SN	Class	Sem	Subject with Code	COURSE OUTCOME
1	F.Y. M. Sc. (CBCS Pattern	1st	CHE-501: Physical Chemistry Paper-I	✓ Students should be able to remember the concepts of thermodynamic parameters, quantum mechanical postulates, rate laws of chemical reactions and computation of macroscopic properties of matter. ✓ Students should understand the basics like state function and path function, Schrodinger wave equation, kinetics of fast reactions, partition functions and ensembles. ✓ Students should be able to apply the knowledge of various quantum mechanical methods to determine the different molecular properties and built the concept of the relation between thermodynamics and quantum mechanics ✓ Students should be able to analyze the rates of various chemical reactions both theoretically and experimentally and also observe the effect of catalyst and determine energies of activation of such reactions. ✓ Students should be able to evaluate variation of thermodynamic parameters for multi component systems and their variation with other extensive properties, Schrodinger wave equation and its application to hydrogen and hydrogen like atoms. ✓ Students should be able to create the solutions to avoid excess use of energy in chemical reactions by applying their knowledge of thermodynamics and chemical kinetics.
2	F.Y. M. Sc. (CBCS Pattern	1st	CHE-502: Inorganic Chemistry Paper-I Section I- Molecular Symmetry and its applications to Inorganic chemistry	✓ Define symmetry elements and symmetry operations, classes, properties of a group, group multiplication table, etc. ✓ Classify symmetry elements, point group, Group, sub-group and classes. ✓ Use wave function as basis for determination of irreducible representations and the Great

				Orthogonality theorem and its consequence. ✓ Solve problem based on point group, matrix representation and character table ✓ Construct character table of various point group ✓ Justify which can take part in bonding on the basis of SALCs and point group of molecules.
3	F.Y. M. Sc. (CBCS Pattern)	1st	CHE-502: Inorganic Chemistry Paper-I Section-II: Chemistry of Main Group Elements	✓ Define electron deficient, electron precise and electron rich species, Pseudohalogens, Oxoacids and Oxidation state. ✓ Describe special properties of fluorine, Nitrogen activation, Oxo acids of nitrogen, sulphur and phosphorous, synthesis and structure of xenon fluorides. ✓ Explain term metal sulfides, selenides, tellurides, polonide, inter-halogens, Halogen oxides, Graphene, fullerenes and carbon nanotube. ✓ Determine Oxidation states of nitrogen and their inter conversion and application of crown ether in extraction of alkali and alkaline earth metal. ✓ Differentiate between diamond and graphite, Pseudohalogens and interhalogens. ✓ Classify the hydrides, borides and oxyacids and draw their structure.
4	F.Y. M. Sc. (CBCS Pattern)	1st	CHE -503, Organic Chemistry-I	✓ Understand the concepts of aromaticity, stereochemistry, and oxidation-reduction reactions.Learn the concepts of stereochemistry. ✓ Predict the product and mechanism of the reactions. ✓ Advance knowledge of various stereochemical aspects. ✓ Apply the concepts of oxidations and reduction to solve the advance problems. ✓ Develop problem solving ability
5	F.Y. M. Sc.	1st	CHE- 504, Physical Chemistry Practical I	✓ Students will grasp the concept of reaction rate and its significance in Chemical Kinetics.

	(CBCS Pattern)			✓ Students will learn how to use experimental data to deduce rate laws and rate constants. ✓ Students will be familiar with the fundamental principles of colorimetry and spectrophotometry including Beer's law, Lambert- Beer's law and the relationship between absorbance and concentration. ✓ Students will able to operate the instruments like spectrophotometer and colorimeter. ✓ Students will be able to determine the densities of the solutions and can calculate molar volumes
6	F.Y. M. Sc. (CBCS Pattern)	1st	CHE-505, Inorganic Chemistry Practical-I	✓ Prepare solution of required conc. and handle the laboratory equipment properly. ✓ Perform experiment accurately and able to perform calculation. ✓ Explain experiment and principal of experiment in detail. ✓ Perform calculations and discuss results and write conclusions of the experiment. ✓ Apply knowledge to a) design experiment for given aim or modify experiment to enhance results. b) to find out lacuna in experimental procedure. ✓ Solve problem/ numerical depending on given experimental data / information.
7	F.Y. M. Sc. (CBCS Pattern)	1st	CHE-506, Organic Chemistry Practical I	✓ Understand the theoretical aspects behind separation, purification and synthesis of organic compounds. ✓ Acquire the experimental skills for separation, purification, identification and synthesis of organic compounds. ✓ Design experimental set up for performing the organic reactions. ✓ Monitor the organic reactions. ✓ Describe the mechanistic aspects of organic reactions. ✓ Develop problem solving ability.
8	F.Y. M. Sc.	1st	CHEPIA-507 (D), Basic Organic Chemistry	✓ Understand the concepts of chemical bonding, various structural effects, acids and bases, and types of reactions

	(CBCS Pattern)			✓ Basic knowledge of aliphatic and aromatic substitutions, elimination and addition reactions ✓ Understand and identify the types of organic reactions. ✓ Write the mechanism of aliphatic and aromatic substitutions, elimination and addition reactions and oxidation-reduction reactions ✓ Solve the problems involving multiple steps. ✓ Develop problem solving ability of the students
9	F.Y. M. Sc. (CBCS Pattern)	1st	CHE-508, Research methodology	✓ Develop a comprehensive understanding of different research methodologies and their applications in mathematics. ✓ Cultivate critical thinking and analytical skills necessary for identifying research problems and formulating research questions. ✓ Provide practical experience in designing experiments, collecting and analyzing data, and interpreting ✓ research results.
SN	**Class**	**Sem**	**Subject with Code**	**COURSE OUTCOME**
1	F.Y. M. Sc. (CBCS Pattern)	2nd	CHE- 551, Physical Chemistry-II	✓ Remember basic concepts of molecular spectroscopy, selection rules, intensity of spectral lines, radioactive decay and decay kinetics. ✓ Understand principles and applications of Rotational, Vibrational, Raman, electronic and Mossbauer spectroscopy. Understand concepts of nuclear and radiation Chemistry. Applications of Radioisotopes ✓ Apply various spectroscopic techniques for gaining insights into molecular structure ✓ Analyse vibrating diatomic molecule, simple harmonic and anharmonic oscillator, Scattering of light, Raman Spectrum, interaction of γ radiation with matter and radiation dosimetry. ✓ Evaluate bond length, vibrational frequency, force constant and dissociation energy using spectral data. ✓ Able to create theoretical rotational and vibrational spectra of simple molecules. Identify and define various types of

				nuclear changes or processes including fission, ✓ fusion and decay reactions
2	F.Y. M. Sc. (CBCS Pattern)	2nd	CHE-552: Inorganic Chemistry-II SECTION-I: Coordination Chemistry	✓ Define R. S. term, configuration, microstate, paramagnetic, diamagnetic ferromagnetic, antiferromagnetic, Curie and Neel temperature. ✓ Identify complex ions showing same R.S. terms, degeneracy of ground state terms of metal ions, and spin multiplicities of different configurations. ✓ Interpret electronic spectra for spin allowed Oh and Td complexes using Orgel diagram, Magnetic properties of A, E and T ground terms in complexes and selection rules. ✓ Calculate frequencies of absorption spectrum, 10Dq, Racah and nepholauxetic parameter for a complex, and magnetic moments of complexes ✓ Construct microstate table for various configuration and prepare correlations diagram and Tanabe-Sugano diagram for various configurations in Td an Oh ligand field. ✓ Assess appropriate full spectroscopic terms for various configuration/ion/term.
3	F.Y. M. Sc. (CBCS Pattern)	2nd	CHE-552: Inorganic Chemistry-II SECTION-II: Bioinorganic Chemistry	✓ Define metalloproteins, metallo-eznymes, photosynthesis, HSAB concept, nucleic acids, metalloregulation, Biopolymer effects and acetylcholine receptor. ✓ Explain chelate effect and Irving-William series, pKa values of coordinated ligands, Tuning of redox potential, and Reactions of coordinated ligands. ✓ Describe Fe-S clusters, model compounds and spontaneous self-assembly, metals in medicine, blue copper proteins, and cytochromes, and Na/K pumps. ✓ Express nitrogen fixation, detoxification of mercury, structure of RNA, cis-platin, amino acids, siderophore,and calmoduline zinc finger proteins. ✓ Distinguish between hemoglobin and myoglobin, transferrin and ferritin, photosystem-I and photosystem-II.

				✓ Decide role of metals in biological system, medicine, blood coagulation, oxygen storage and transport, ✓ photosynthesis and uptake and transport of iron
4	F.Y. M. Sc. (CBCS Pattern)	2nd	CHEPIA-553, Organic Chemistry-I	✓ Understand the concepts of molecular rearrangements ✓ Basic knowledge of Organic Spectroscopy such as UV, IR and NMR. ✓ Solve the problems based on molecular rearrangement reactions. ✓ Deduce the structure from the spectral data and justify the findings. ✓ Apply the concepts of oxidations and reduction to solve the advance problems. ✓ Develop problem solving ability.
5	F.Y. M. Sc. (CBCS Pattern)	2nd	CHE- 554, Physical Chemistry Practical II	✓ Students will grasp the fundamental principles of Conductometry, Polarography, Potentiometry and pH metry. ✓ Students will familiar with the operation of Conductometer, Polarimeter, Potentiometer and pH meter. ✓ Students will understand the concepts of conductance, resistance and learn how to calculate and interpret these values. ✓ Students will learn to interpret polarographic waves and understand their significance in identifying electroactive species and determining their concentration. ✓ Students will explore the applications of Potentiometry in various fields such as acid- base titrations, ✓ determination of pH and analysis of ionic concentration
6	F.Y. M. Sc. (CBCS Pattern)	2nd	CHE-555: Inorganic Chemistry Practical-II	✓ Define coordination complex, cell constant, resistance, specific conductance, equilibrium constant etc. ✓ Discuss photochemistry of potassium trioxalatoferrate complex, kinetics of formation of Cr(III)-EDTA, Determination of Cu(II)and Fen(II) by solvent extraction technique. ✓ Outline the flow-chart for synthesis of [Mn(acac)3], Chloropentaamminecobalt(III) chloride,

				Nitro pentaamminecobalt(III) chloride, Bis[TrisCu(I)thiourea complexes. ✓ Estimate purity of the [Mn(acac)3], Chloropentaamminecobalt(III) chloride, Nitro pentaamminecobalt(III) chloride, Bis[TrisCu(I)thiourea complexes. ✓ Determine equilibrium constant of M–L systems Fe(III)–Sulphosalicylic acid, magnetic susceptibility (χg and χm) of mercury tetracyanato cobalt or Fe(acac) and magnetic susceptibility (χg and χm) of mercury tetracyanato cobalt or Fe(acac). ✓ Calculate the quantity from observation of the ✓ experiments and Interpret the result obtained respective experiments.
7	F.Y. M. Sc. (CBCS Pattern)	2nd	CHE-556, Organic Chemistry Practical II	✓ Understand the theoretical concepts behind organic synthesis. ✓ Acquire the experimental skills for separation, purification, identification and synthesis of organic compounds. ✓ Design experimental set up for performing the organic reactions. ✓ Monitor the organic reactions and analyse the products using spectral results. ✓ Describe the mechanistic aspects of organic reactions. ✓ Develop problem solving ability.
8	F.Y. M. Sc. (CBCS Pattern)	2nd	CHE-557(A), Organometallic Compounds and Inorganic Reaction	✓ Define various terms in organometallic chemistry and inorganic reaction mechanism etc. ✓ Explain/Discuss various reaction mechanisms such as ligand insertion, inner and outer sphere mechanism, ligand substitution reaction. ✓ Discuss 1. Structure and bonding in carbonyl and organometallic complexes, 2: Trans effect, 3. Ligand field effects, catalytic cycles, 4. Inert and labile complexes, 5. Synthesis methods of organometallic compounds, etc. ✓ Apply 18 electron rule. Applications of organometallic compounds and mechanism of these reactions. ✓ Demonstrate IR spectra of carbonyl complexes, deduce structure of carbonyl complexes

				✓ Justify structures of organometallic compounds from spectral data.
SN	**Class**	**Sem**	**Subject with Code**	**COURSE OUTCOME**
1	S.Y.M.Sc. (CBCS Pattern)	3rd	CHA-601 MJ: Thermal and Extraction Techniques in Analytical Chemistry	✓ Define key terms and historical context in thermal and extraction techniques. ✓ Explain the operation of thermal analysis apparatuses. ✓ Apply theoretical principles to interpret thermal analysis data. ✓ Analyze applications of simultaneous thermal analysis techniques. ✓ Evaluate the efficiency of analytical extraction techniques. ✓ Summarize the significance and applications of thermal and extraction techniques.
2	S.Y.M.Sc. (CBCS Pattern)	3rd	CHA-602 MJ: Advanced Chromatographic Method Pof Chemical Analysis	✓ Define various terms in chromatography (GC and HPLC) and mass spectroscopy. ✓ Know instrumentation's basic principles of chromatography (GC and HPLC) and mass spectroscopy. ii) separation in GC / HPLC column. iii) Functioning and construction of GC / HPLC/ MS detectors. ✓ . Apply chromatography techniques in industry and in analytical laboratory and solve numerical problems on chromatography (GC and HPLC) and mass spectroscopy. ✓ Analysis the sample by utilizing the gained knowledge Advanced Chromatographic techniques. ✓ .Relate the different chromatographic techniques based on their significance and application. ✓ Collect information of advanced chromatographic techniques like GC and HPLC.
3	S.Y.M.Sc. (CBCS Pattern)	3rd	CHA-603 MJ: Applied Electro-analytical Techniques	✓ Define various terms related to Electrochemistry. ✓ Explain instrumentations and functioning of polarography, potentiometry, cyclic voltammetry, Stripping methods, and hydrodynamic voltammetry. ✓ Apply the gained knowledge of polarography, potentiometry, cyclic

				voltammetry, Stripping methods, hydrodynamic voltammetry and solve numerical problems on electrochemistry. ✓ . Differentiate between polarography, potentiometry, cyclic voltammetry, Stripping methods, and hydrodynamic voltammetry. ✓ Explain applications polarography, potentiometry, cyclic voltammetry, Stripping methods, and hydrodynamic voltammetry. ✓ Create a list of applied electro-analytical techniques, their significance and applications.
4	S.Y.M.Sc. (CBCS Pattern)	3rd	CHA-604 MJP: Instrumental Methods of Chemical Analysis	✓ Define various terms involved in practical methods of quantitative analysis. ✓ Explain the instrumentations of colorimeter, spectrophotometer, photoflurometer, TGA, HPLC, GC, Flame-photometer, CV, AAS, etc. ✓ Apply/select method / instrumental parameters for analysis of the given sample. ✓ Explain / describe basic principles of chromatography and different instrumental methods of analysis. Able to handle instruments according to SOP. ✓ Differentiate among the various analytical methods / techniques of chemical analysis and verify theoretical principle practically or apply theory to explain practical observations. ✓ Maintain a proper record of analytical data in notebook. Observer personal safety in laboratory and able handle all chemicals, instruments, etc safely in laboratory
5	S.Y.M.Sc. (CBCS Pattern)	3rd	CHA-605 MJP: Analytical Method Development and Validation	✓ Define / understand various chemical terms involved Method development and validation. ✓ Explain statistical parameters of Method development. ✓ .Apply / select particular method / instrumental parameters for analysis of given sample and give mathematical

				treatment to analytical data and able to interpret the results accurately. ✓ Analyze the results able to take the decision regarding quality of sample. ✓ . Maintain proper record of analytical data in notebook. Observer personal safety in laboratory and able handle all chemicals, instruments, etc safely in laboratory. ✓ Design / modify and validate new analytical method for chemical analysis of particular
SN	**Class**	**Sem**	**Subject with Code**	**COURSE OUTCOME**
6	S.Y.M.Sc. (CBCS Pattern)	3rd	CHA-610 (A) MJ: Analytical Methods for Examining Water and Soil	✓ Define various terms used in- analysis of water and soil ✓ Describe techniques / methods of water and soil analysis ✓ Solve numerical problems on analysis water and soil. ✓ Describe sources of water pollution and pollutants. ✓ Describe / explain methods / techniques of sampling of water and soil and their analysis. ✓ . Explain importance of water and soil analysis.
7	S.Y.M.Sc. (CBCS Pattern)	3rd	CHA-611 (B) MJ: Clinical Analytical Chemistry	✓ . Define various terms in body fluid analysis, vitamin analysis, therapeutic drug monitoring. ✓ Explain / describe basic principles of in body fluid analysis methods such as LC-MS, Lowry method, GOD-POD methos, urease method, fluorometric methods, colorimetric methods, etc. ✓ Solve numerical problems on analytical methods for body fluid analysis. ✓ Interpret results of analysis of clinical sample. ✓ Analyze samples using particular method / instrumental parameters ✓ Explain instrumentations in body fluid analysis, vitamin analysis, therapeutic drug monitoring.

8	S.Y.M.Sc. (CBCS Pattern)	3rd	CHA-611 (C) MJ: Forensic Analytical Chemistry	✓ Define various terms used in- Forensic analysis ✓ Describe techniques / methods of forensic analysis ✓ Apply methods of forensic for spot investigation of Alcohols Fire and Explosive analysis ✓ Solve numerical problems on analysis forensic. ✓ Explain importance of forensic analysis. ✓ Describe / explain methods / techniques of forensic sampling and their analysis.
9	S.Y.M.Sc. (CBCS Pattern)	3rd	CHA-611 (A) MJP: Measuring Water and Soil Quality	✓ Learn various terms used in- analysis of water and soil ✓ Explain techniques / methods of water and soil analysis ✓ Employ the gained knowledge in determination water and soil quality. ✓ Analyse the sources of water pollution and pollutants. ✓ Describe techniques of sampling of water and soil and their analysis. ✓ Create a report on experimental procedures, observations and results
10	S.Y.M.Sc. (CBCS Pattern)	3rd	CHA-611 (B) MJP: Practical Clinical Biochemistry	✓ Define various terms in clinical analytical chemistry. ✓ Know basic principles of in body fluid analysis methods such as Lowry method, GODPOD methos, urease method, fluorometric methods, colorimetric methods, ELISA, etc. ✓ . Apply / select particular method / instrumental parameters for analysis of particular sample. ✓ Interpret results of analysis of clinical sample. ✓ Explain instrumentations used in clinical analytical chemistry. ✓ Create a report on experimental procedures, observations and finings of analyses performed in laboratory.
11	S.Y.M.Sc. (CBCS Pattern)	3rd	CHA-611 (C): Practical Forensic Chemistry	✓ Define various terms used in forensic analysis. ✓ Explain/describe techniques / methods of forensic analysis ✓ Perform calculations on forensic quantitative analysis.

				✓ Investigate the crimes. ✓ Evaluate drug and poison cases based on gained knowledge. ✓ Submit a report of experimental procedures, observations and results.
12	S.Y.M.Sc. (CBCS Pattern)	3rd	CHA-631 RP: Research Project	✓ Identify and select a research-based project in the field of analytical chemistry. ✓ Summarize the significance of the chosen research problem, outline aims, and objectives. ✓ . Execute the outlined research methodology and experimental procedures. ✓ Analyse existing literature related to the research problem, critically evaluating previous studies and integrating relevant findings into the review of literature section. ✓ . Interpret experimental results effectively, discussing findings within the context of the research objectives, and drawing meaningful conclusions in the results and discussion section ✓ Present the research project through a comprehensive report format, including proper documentation, citation, and acknowledgment, and prepare for external evaluation through a PowerPoint presentation and viva voce examination.
13	S.Y.M.Sc. (CBCS Pattern)	4th	CHA-651 MJ: Applied Analytical Spectroscopy	✓ . Learn various terms in atomic absorption, atomic emission, fluorescence, ESR and electron spectroscopy ✓ Describe basic principles of atomic absorption, atomic emission, ICPAES, ICPAES-MS, fluorescence, ESR and electron spectroscopy. ✓ Select appropriate methods for sample treatment in AAS / AES, ICPAES, ICPAES-MS. 4. Solve problems based on atomic absorption, atomic emission, ICPAES, ICPAES-MS, fluorescence, ESR and electron spectroscopy. ✓ . Interpret ESR spectra, super hyperfine splitting and g value in ESR, and parameters affecting it. ✓ . Explain the instrumentation of atomic absorption, atomic emission, ICPAES,

				ICPAESMS, fluorescence, ESR and electron spectroscopy.
14	S.Y.M.Sc. (CBCS Pattern)	4th	CHA-652 MJ: Chemical Methods of Pharmaceutical Quality Control	✓ Define various terms related to pharmaceutical identification, quality tests and assay. ✓ Describe basic principles of assay of raw materials and finished products. ✓ Solve numerical problems on analysis chemical analysis of pharmaceuticals.. ✓ Interpret IR, UV-Visible, GC-Chromatogram and HPLC chromatogram in pharmaceutical identification. ✓ Analyze the methodology for identification, quality tests and assay of pharmaceutical raw materials and finished products. ✓ Explain importance of chemical analysis in quality control of pharmaceuticals.
15	S.Y.M.Sc. (CBCS Pattern)	4th	CHA-653 MJP: Pharmaceutical Analysis for Quality Control	✓ Define various terms related to pharmaceutical identification, quality tests and assay. ✓ To describe basic principles of assay of raw materials and finished products. ✓ Employ the methodology for identification, quality tests and assay of pharmaceutical raw materials and finished products. ✓ Solve numerical problems on analysis chemical analysis of pharmaceuticals. ✓ Interpret IR, UV-Visible spectrum in pharmaceutical identification. ✓ Explain importance of chemical analysis in quality control of pharmaceuticals.
16	S.Y.M.Sc. (CBCS Pattern)	4th	CHA-654 MJP: Methods of Food Quality Determination	✓ Define various terms food analytical chemistry and food analytical techniques. ✓ Describe basic principles of various methods of food analysis. ✓ Apply appropriate methods for sample treatment for particular analysis of food. ✓ Analyse the food ✓ Evaluate the quality of the food. ✓ . Prepare a laboratory report detailing experimental procedures, observations, and findings related to food quality analysis
17	S.Y.M.Sc. (CBCS Pattern)	4th	CHA-660(A) MJ: Bio-Analytical Techniques	✓ Define various terms in electrophoresis, capillary electrophoresis, ELISA ✓ Learn the basic principles paper electrophoresis, gel electrophoresis,

				capillary electrophoresis, and different types of ELISA. ✓ . Apply the particular method of analysis to particular type of sample. ✓ Relate the advantages and applications of paper electrophoresis, gel electrophoresis, capillary electrophoresis, and different types of ELISA. ✓ Interpret experimentally obtained results of paper electrophoresis, gel electrophoresis, capillary electrophoresis, and different types of ELISA. 6. Explain instrumentation paper electrophoresis, gel electrophoresis, capillary electrophoresis, and different types of ELISA.
18	S.Y.M.Sc. (CBCS Pattern)	4th	CHA-660 (B) MJ: Automation and Sensor	✓ Define various terms used sensors and automation. Explain techniques/methods in sensors and automation. ✓ Describe application of automation in analytical laboratory and sensors ✓ Explain importance sensors and automation in analytical chemistry. ✓ Give the choice of sensor for particular analysis ✓ Explain principles of different types of sensors in analytical chemistry.
19	S.Y.M.Sc. (CBCS Pattern)	4th	CHA-660(C) MJ: Analytical Techniques of Polymers Characterization	✓ Learn various terms in polymer analysis. ✓ Understand the basic principles techniques / methods polymer analysis. ✓ Categorize the different techniques / methods of polymer analysis ✓ Analyse the polymer based on their properties, contents and applications. ✓ Assess the quality of polymer ✓ . Describe results of analysis polymer.
20	S.Y.M.Sc. (CBCS Pattern)	4th	CHA-681 RP: Research Project	✓ Identify and select a research-based project in the field of analytical chemistry ✓ Summarize the significance of the chosen research problem, outline aims, and objectives. ✓ . Execute the outlined research methodology and experimental procedures. ✓ Analyse existing literature related to the research problem, critically evaluating previous studies and integrating relevant findings into the review of literature section.

				✓ Interpret experimental results effectively, discussing findings within the context of the research objectives, and drawing meaningful conclusions in the results and discussion section. ✓ Present the research project through a comprehensive report format, including proper documentation, citation, and acknowledgment, and prepare for external evaluation through a PowerPoint presentation and viva voce examination.
				✓

2) DEPARTMENT OF BOTANY

PROGRAM OUTCOME
(2024Pattern)

PO -01	Attain thoughtful proficiency in the field of plant sciences.
PO-02	Acquire the ability to perform in multidisciplinary domains.
PO-03	Attain the ability to exercise intelligence of scientific knowledge for investigation and innovation and nourishment of the world.
PO-04	Learn value based ethical practices and principles committed to professional ethics.
PO-05	Incorporate 21st century skill oriented self-directed and life-long learning.
PO-06	Obtain ability to inculcate the knowledge of plant science in diverse contexts with global perspective.
PO-07	Attain maturity to harness the destiny and responds to one's calling.

(2019Pattern)

PO -01	Apply the knowledge of biology to make scientific queries and enhance the comprehension potential.
PO-02	It also provides opportunities to learn experimental concepts related with life sciences.
PO-03	Successful transfer of scientific knowledge both orally and in writing.
PO-04	Function as an individual, as a member or a leader to perform a task in class room situation or during field study.
PO-05	Acquired the skills handling scientific instruments, planning and performing in laboratory experiments. The skills of observations and drawing logical inferences from the scientific experiments.
PO-06	Insist the significance of conserving a clean environment for perpetuation and sustainable development. Study incessantly by self to cope with growing competition for higher studies and employment.
PO-07	Developed scientific outlook not only with respect to science subjects but also in all aspects related to life. Realized that knowledge of subjects in other faculties such as humanities, performing arts, social sciences etc.

PROGRAM SPECIFIC OUTCOME(PSO)

(2024Pattern)

PSO -01	Recall the diversity, classification, evolution and developmental changes among the plants with reference to lower and higher plant groups and create a knowledge base in understanding the basis of plant diversity, economic values and taxonomy of plants.
PSO-02	Understand the advanced concepts of Genetics, Cell biology and Plant Biotechnology of plants and its implementation for the improvement of crop productivity.
PSO-03	Acquire and utilize the skills of post-harvest, flower design, fruit processing and dehydration techniques, organic farming and various plant processing technologies for developing the economy to the growing world.
PSO-04	Know about the importance of Medicinal plants and its useful parts, economically important plants in our daily life and also about the traditional medicines and herbs, and its relevance in modern times.
PSO-05	Inoculate the methodology followed in plant breeding, pharmacognosy, herbal drug technology, plant protection, propagation and improvement.
PSO-06	Adapt methods of scientific research in plant improvement program and create entrepreneurships, employment to the society.
PSO-07	Analyze the impact of scientific and technological advances on the environment and society and understand the importance of biodiversity conservation, green cover development, carbon sequestration and utilize the knowledge for sustainable development.
PSO-08	Explore the knowledge of biotic and abiotic stress tolerance, plant microbe interaction and Integrate pest management for making the revolution in the agriculture.
PSO-09	Enrich the ability of critical thinking, development of scientific attitude, handling of problems and generating solutions, improve practical skills, and enhance communication skill.
PSO-10	Apply the fruitful knowledge of plant sciences and plant resources for the sustainable development, betterment of society and environment by recognizing the ethical values.
PSO-11	Become competent enough in various analytical and 21st century technical skills related to plant sciences for their exploration.
PSO-12	Exhibit the potential to effectively accomplish tasks independently and as a member or leader in diverse teams, and in multidisciplinary settings.
PSO-13	Employ critical thinking based problem solving and practical skills pertaining to botanical techniques and computational knowledge and apply strategies for environmental conservation.
PSO-14	Demonstrate knowledge and scientific understanding to identify research problems, design experiments, use appropriate methodologies, analyze and interpret data.

(2019Pattern)

PSO -01	Understand the nature and basic concepts of cell biology, genetics, anatomy, morphology, biochemistry, physiology, taxonomy and ecology of plants.

PSO-02	Students learn to carry out practical work, in the field and in the laboratory, gain skills and proficiency in Interpreting plant morphology and anatomy, Plant identification etc.
PSO-03	Identify the taxonomic position of plants, formulate the research literature and analyze plants with substantiated conclusions using first principles and methods of nomenclature and classification in Botany.
PSO-04	Identify problems and finding of solutions using creative approaches, acquired through interdisciplinary experiences, and a depth and breadth of knowledge/expertise in the field of Plant Identification.
PSO-05	Demonstrate hands on skill in the experimental techniques and methods of analysis in various fields of Botany.

COURSE OUTCOME
(2024Pattern)

SN	Class	Sem	Subject With Code	COURSE OUTCOME
1	F.Y.B.Sc	I	Course Code- BOT-101-T Course Title: Basics of Plant Sciences	• By the end of the course, students will be able to understand and classify plants into major groups (algae, fungi, lichens, bryophytes, pteridophytes, gymnosperms, and angiosperms) based on their morphological and reproductive features. • Students will be able to identify and explain the economic significance of various plant groups, recognizing their applications in industries such as food, pharmaceuticals, biofuels, textiles, and environmental sustainability. • Students will gain the ability to describe the reproductive cycles and morphological characteristics of plants like algae, fungi, lichens, bryophytes, and others, with examples from groups such as Nostoc, Agaricus, Riccia, Azolla, Cycas, and others

				• Students will understand the various applications of plant sciences in real-world scenarios such as environmental monitoring, bioremediation, medicine, and industrial processes like biofuel production, food processing, and landscaping. • By the conclusion of the course, students will be well-equipped to pursue careers or further education in fields related to plant biology, biotechnology, agriculture, environmental science, and various industries benefiting from plant-derived products and services.
2	F.Y.B.Sc	I	Course Code- BOT-102-P Course Title: Practical Based on BOT-101-T	• Students will gain a strong foundation in plant and fungal taxonomy, being able to classify and describe various organisms, including algae, fungi, lichens, bryophytes, pteridophytes, gymnosperms, and angiosperms. •Students will be able to apply their knowledge of plant and fungal morphology to practical situations, including the identification of species and the exploration of their applications in industries like food, pharmaceuticals, and bioremediation. • Students will develop an understanding of the environmental and economic significance of different plant and fungal groups, recognizing their role in sustainability, bioremediation, agriculture, and carbon sequestration. • Students will gain hands-on experience in plant diversity and field research methods through visits to natural ecosystems, fostering observational skills and a deeper connection to the natural world.

				• Students will be able to describe and analyze the applications of plants and fungi in various industries, such as food processing, cosmetic manufacturing, environmental monitoring, and biofuel production, preparing them for careers in applied biology and biotechnology
3	F.Y.B.Sc	I	SEC-101-BOT-P Course Title: Flower Design Techniques	• Develop proficiency in creating various basic floral arrangements, including handtied bouquets, vase arrangements, and table centre pieces, using proper techniques and principles of design. • Acquire advanced skills in creating complex floral designs, such as cascading bouquets, floral arches, and large-scale installations, demonstrating creativity and attention to detail. • Gain knowledge of different floral design styles, such as traditional, contemporary, and seasonal, and stay updated with current trends in the floral industry. • Develop the ability to create customized floral designs tailored to specific occasions, themes, and client preferences, demonstrating creativity and versatility in design • Understand the principles of flower selection, care, and handling, including proper conditioning, storage, and use of floral foam and other design tools.
4	F.Y.B.Sc	I	BOT-102-OE-T: Plants & Human Welfare	•Develop a comprehensive understanding of the diversity of plant species and their utility in various aspects of human life, including food, medicine, shelter, and

				clothing. •Gain knowledge about medicinal plants, their active compounds, and their therapeutic uses in traditional and modern medicine. •Acquire awareness of sustainable practices in plant resource management, including conservation, cultivation, and utilization, to ensure long-term benefits for both humans and the environment. •Appreciate the significance of traditional knowledge systems related to plants and their role in preserving cultural heritage and biodiversity. •Develop critical thinking and problem-solving skills to evaluate the ethical, social, and environmental implications of plant use and propose sustainable solutions.
5	F.Y.B.Sc	II	BOT-151-T: Plant Morphology	• Students will be able to identify, describe, and differentiate between the various types of plant organs (roots, stems, leaves, flowers) and their modifications, based on morphological traits. • Students will develop the ability to analyze how specific morphological features of plants such as modified roots, stems, and leaves serve particular ecological functions, enhancing their survival in various habitats. • Students will be able to explain the morphology of flowers and inflorescences,

				including the different types and structures of floral whorls and their roles in the plant's reproductive process. • Students will gain a comprehensive understanding of the morphology of fruits and seeds. • By the end of the course, students will have the skills to examine plant specimens in the field and laboratory, classifying them based on morphological features and demonstrating an understanding of plant function.
6	F.Y.B.Sc	II	Course Code - BOT-152-P Course Title: Practical Based on BOT 151-BOT-T	• Students will gain an understanding of the functional significance of morphological modifications, such as modified roots, stems, and leaves. • Students will be able to analyze and identify the structure and types of floral whorls calyx, corolla, androecium, and gynoecium • Students will gain an understanding of the functional significance of Morphology of Fruit and Seed. • Students will be able to analyze and identify the structure and types of Inflorescence.
7	F.Y.B.Sc	II	Course Code – SEC-151-BOT-P Course Title: Plant Preservation Techniques	• Students will gain skills in preparing and processing pressed specimens for herbarium storage, ensuring the longevity and utility of collected specimens for scientific research • Students will acquire hands-on experience in preserving plant specimens using wet preservation methods, ensuring the

				preservation of cellular structures and morphological details necessary for further scientific study. • Students will learn and demonstrate modern methods used in the preservation of botanical specimens, particularly in creating dry floral arrangements. • Through visits to museums, herbariums, and plant preservation units, students will integrate classroom learning with professional practices, understanding the operational standards and challenges in botanical preservation environments. • Students will successfully collect, prepare, and document a variety of preserved specimens, including herbarium sheets and wet preserved samples. • Students will be proficient in the use of various tools and equipment for plant preservation, understanding their specific uses and maintenance requirements. • Students will demonstrate mastery in several specimen drying techniques and will be able to choose and apply the best method based on the nature of the plant material and the intended use of the specimens.
8	F.Y.B.Sc	II	BOT-151-OE-P Fruit Processing & Flowers Arrangement	•Students will demonstrate the ability to perform various fruit processing techniques, such as canning, drying, freezing, and making jams, jellies, and preserves, ensuring the preservation of nutritional value, flavor, and texture of fruits. •Students will understand the chemical and biological processes involved in fruit spoilage and the methods used to prevent it. They will be able to apply different preservatives, packaging techniques, and storage conditions to enhance the shelf life and safety of processed fruits. •Students will be skilled in designing and creating various types of flower arrangements. They will apply principles of

				floral design and the use of different floral materials and tools. • Students will be able to express their creativity through innovative and aesthetically pleasing flower arrangements. • Students will bridge the gap between theoretical knowledge and practical applications by gaining exposure to the fruit processing industry and the floral design market.
9	S.Y.B.Sc.	III	BO-231: Taxonomy of plant Angiosperms & Ecology	• Gain knowledge of taxonomy. • Identify, classify and give the name. • Give comparative account of various systems of classification. • Learn various families with reference to systematic position and description. • Introduce ecology, diversity, methods of vegetation sampling and hotspots.
10	S.Y.B.Sc.	III	BO-232: Plant Physiology	• Correlate between practicals with theory to improve the understanding. • Participate actively in educational tour for the study of flora. • Learn the plant related practical skills.
11	S.Y.B.Sc.	III	BO-233: Practical based on BO231 & BO232	• Gain insights of research related methodology.
12	S.Y.B.Sc.	IV	BO-241: Plant Anatomy & Embryology	• Learn about plant anatomy with epidermal tissue and mechanical tissue system. • Gain knowledge of normal and abnormal secondary growth in Angiosperms.

				• Gain knowledge of embryology with respect to micro and megasporogenesis. • Gain information of flower pollination, fertilization and embryo development.
13	S.Y.B.Sc.	IV	BO-242 Plant Biotechnology	• Learn the concepts of plant tissue culture techniques and single cell protein. • Gain the knowledge of plant genetic engineering, genomics, proteomics and bioinformatics. • Learn the bioremediation and biofuel technology. • Use the techniques for the developments.
14	S.Y.B.Sc.	IV	BO-243: Practical based on BO241 &BO242	• Correlate between practicals with theory to improve the understanding. • Participate actively in educational tour for the study of flora. • Learn the plant related practical skills. • Gain insights of research related methodology.
15	T.Y.B.Sc.	V	BO-351: Algae and Fungi	• Learn the knowledge of Lower Cryptogams. • Identify the Algal and Fungal thallus. • Study the life cycles of algae. • Identify the economic importance of algae.

				• Learn the symbiotic Association of Lichens, Mycorrhiza.
16	T.Y.B.Sc.	V	BO-352: Archegoniate	• Gain the knowledge of Archegoniate. • Identify the Bryophytes. • Collect the knowledge of range of thallus organization. • Study the life cycles of Bryophytes. • Compare different Bryophytes.
17	T.Y.B.Sc.	V	BO-353: Spermatophyta & Paleobotany	•Collect the information of origin of angiosperms. •Gain the knowledge of Speciation &Endemism. •Learn the classifications. •Gather the information of Herbaria and Botanical Gardens.
18	T.Y.B.Sc.	V	BO-354: Plant Ecology	•Learn the inter relationship between the living world and the environment. •Gain the knowledge of Biogeography. •Learn the population ecology and community ecology. •Study of biogeochemical cycles.
19	T.Y.B.Sc.	V	BO-355: Cell and Molecular Biology	•Define the terms in Cell Biology. •Collect the information on cell organelles. •Identify nucleus nucleolus and nucleolar organizer and nuclear envelope. •Learn about Chromosomes. •Gets idea of cell signalling.
20	T.Y.B.Sc.	V	BO-356: Genetics	•Define genetics and terms involved in it. •Gain the insights of Mendelism and Neo Mendelism (Gene Interaction). •Learn the multiple alleles, linkage, recombination and crossing over and mutation. •Solve the numerical and structural alterations of chromosomes. •Learn the sex linked chromosomes.

21	T.Y.B.Sc.	V	BO-357: Practical based on BO 351 &BO 352	•Correlate between practicals with theory to improve the understanding. •Participate actively in educational tour for the study of flora and characterization of bio different molecules.
22	T.Y.B.Sc.	V	BO-358: Practical based on BO353 & BO354	•Correlate between practicals with theory to improve the understanding. •Participate actively in educational tour. •Study of families Nymphaeaceae, Oleaceae, Amaranthaceae and Cannaceae. •Prepare Botanical keys by using vegetative and reproductive characters.
23	T.Y.B.Sc.	V	BO- 359: Practical based on BO355 & BO 356	•Correlate between practicals with theory to improve the understanding. •Cytological techniques-preparation of Fixatives, preparation of stains. •Isolation of nuclei and characterization. •Study of various stages of mitosis and meiosis. •Study of Chromosomes Morphology. •Isolation of plant genomic DNA by suitable method, Estimation of Plant DNA by DPA method.
24	T.Y.B.Sc.	V	SECI:BO-3510: Medicinal Botany	•Study of medicinal plants: History, Scope and Importance. •Define ions and Scope of Indigenous Medicinal Sciences. •Study of Ayurveda, Siddha and Unani. •Ethnobotany and Folk medicines. •Learn the conservation of endangered and endo medicinal plants. •Propagation of Medicinal Plants.
25	T.Y.B.Sc.	V	SECII:BO-3511: Plant Diversity & Human Health	•Study of plant biodiversity, agrobiodiversity and loss of biodiversity. •Study of Management of Plant Biodiversity and Conservation of Biodiversity. •Study of role of plants in relation to Human Welfare. •Prepare a list of plants.
26	T.Y.B.Sc.	VI	BO-361: Plant Physiology & Metabolism	• Learn minerals nutrition. • Gain the knowledge of mechanism of photosynthesis. •Learn the respiration, types of respiration, mechanism of aerobic respiration. • Learn stomatal biology. • Gain knowledge of translocation in phloem.

				• Learn plant growth regulators and Photomorphogenesis.
27	T.Y.B.Sc.	VI	BO-362: Biochemistry	• Learn the foundation of Biochemistry. • Define the terms involved in it. • Identify the importance of the solvent of life. • Define enzymes and learn nature of enzymes and co-factors. • Give classification and properties of enzymes. • Learn stomatal biology.
28	T.Y.B.Sc.	VI	BO-363: Plant Pathology	• Learn non-Parasitic Diseases. • Learn the fundamentals of Plant Pathology. • Learn the concepts of plant pathology. • Learn the defence mechanisms. • Identify and use methods of studying plant diseases. • Learn principles of plant diseases control.
29	T.Y.B.Sc.	VI	BO-364: Evolution & Population Genetics	• Learn the concept organic evolution. • Explain the evidence of evolution. • Learn the evolution through ages. • Study population genetics and evolution. • Learn the speciation an dis locating mechanisms.
30	T.Y.B.Sc.	VI	BO-365: Advanced Plant Biotechnology	• Introduce biotechnology. • Study plant tissue culture. • Identify the techniques of genetic engineering and methods of gene transfer. • Learn Cryopreservation and Germplasm Conservation. • Correlate the biotechnology and society. • Learn about microbial biotechnology and transgenic plants.
31	T.Y.B.Sc.	VI	BO-366: Plant Breeding & Seed Technology	• Define and give scope and objectives of Plant breeding. • Learn the techniques and practices of plant. • Identify and use advanced techniques in plant breeding. • Give the introduction of Seed Technology. • Give the importance of Seed Technology.
32	T.Y.B.Sc.	VI	BO-367: Practical based on BO361 &BO362	• Correlation between practical's with theory to improve the understanding. • To organize educational tour for study of flora.

				• To develop plant related practical skills among the students. • To research related methodology in students. • Determination of plasmolysis, stomatal index, catalase activity, Photosynthesis and paper chromatography. • To demonstration physiological experiments.
33	T.Y.B.Sc.	VI	BO-368: Practical based on BO363 &BO 364	• Study the preparation of any one culture media and culture technique for isolation of plant pathogens. • Study of any two of fungal, bacterial, viral and mycoplasma diseases. • Prepare1%Bordeauxmixture,10%Bordeaux paste and Jivamruta. • Study of Koch's Postulates, Fungicides and Microbial pesticides. • Study of geological time scale, types of fossils and evidences of Organic Evolution. • Solve numerical problems.
34	T.Y.B.Sc.	VI	BO-369: Practical based on BO365 & BO 366	• Identify the different tissue culture techniques. • Study of the equipment's used in genetic engineering and study of GM plants. • Prepare plant based nano-particles. • Demonstrate wine production from different fruits. • Demonstrate Hybridization Techniques. • Study of pollen viability and floral morphology of crops. • Study of seed moisture, germination, purity and viability to seed. • Visit to a Plant Breeding Research Centre/Seed Industry.
35	T.Y.B.Sc.	VI	SECI:BO-3610: Nursery & Gardening Management	• Study the different nursery management techniques. • Study of garden management and Sowing/raising of seed sand seedlings. • Prepare saplings.
36	T.Y.B.Sc.	VI	SECII:BO-3611: Biofertilizers	• Study the general account of the microbes used as Biofertilizers. • Study of bacterial, algal, Azolla and fungal biofertilizers. • Study the compost and manuring w.r.t. recycling, methods, Vermicomposting and applications.

				• Learn the marketing skills.

(2019Pattern)

SN	Class	Sem	Subject With Code	COURSE OUTCOME
1	F.Y.B.Sc	I	BO-111: Plant life & Utilization I	• Learn the lower Cryptogams (Thallophytes and Bryophytes). • Know the lifecycle patterns. • Identify the applications of Algae, Fungi, Lichens and Bryophytes. • Participate in field visit.
2	F.Y.B.Sc	I	BO112: Plant Anatomy & Morphology	• Learn the importance of plant morphology. • Identify the morphology of reproductive parts of plants. • Gain knowledge of various tissues and internal organization of plant body. • Explore the knowledge.
3	F.Y.B.Sc	I	BO-113: Practical based on BO111&112	• Correlate between practicals with the or to improve the understanding. • Participate actively in educational tour for the study of flora. • Gain insights of research related

				methodology. • Learn the plant related practical skills.
4	F.Y.B.Sc	II	BO-121: Plant life & Utilization II	• Collect the information of plant diversity. • Gain knowledge of general characters. • Give classification. • Study of lifecycle of Pteridophytes, Gymnosperms and Angiosperms.
5	F.Y.B.Sc	II	BO-122: Principles of Plant Science	• Learn the fundamental concepts of plant physiology. • Gain the knowledge of cell, cell organelles and cell cycle. • Learn the nature of genetic material. • Learn the DNA replication, DNA organization in chromosome.
6	F.Y.B.Sc	II	BO-123: Practical based on BO121 & BO122	• Correlate between practicals with theory to improve the understanding. • Participate actively in educational tour for the study of flora.
7	S.Y.B.Sc.	III	BO-231: Taxonomy of plant Angiosperms & Ecology	• Gain knowledge of taxonomy. • Identify, classify and give the name. • Give comparative account of various systems of classification. • Learn various families with reference to

				systematic position and description. • Introduce ecology, diversity, methods of vegetation sampling and hotspots.
8	S.Y.B.Sc.	III	BO-232: Plant Physiology	• Correlate between practicals with theory to improve the understanding. • Participate actively in educational tour for the study of flora. • Learn the plant related practical skills.
9	S.Y.B.Sc.	III	BO-233: Practical based on BO231 & BO232	•Gain insights of research related methodology.
10	S.Y.B.Sc.	IV	BO-241: Plant Anatomy & Embryology	•Learn about plant anatomy with epidermal tissue and mechanical tissue system. •Gain knowledge of normal and abnormal secondary growth in Angiosperms. • Gain knowledge of embryology with respect to micro and megasporogenesis. • Gain information of flower pollination, fertilization and embryo development.
11	S.Y.B.Sc.	IV	BO-242 Plant Biotechnology	• Learn the concepts of plant tissue culture techniques and single cell protein. • Gain the knowledge of plant genetic engineering, genomics, proteomics and bioinformatics. • Learn the bioremediation and biofuel technology. • Use the techniques for the developments.

12	S.Y.B.Sc.	IV	BO-243: Practical based on BO241 &BO242	• Correlate between practicals with theory to improve the understanding. • Participate actively in educational tour for the study of flora. • Learn the plant related practical skills. • Gain insights of research related methodology.
13	T.Y.B.Sc.	V	BO-351: Algae and Fungi	• Learn the knowledge of Lower Cryptogams. • Identify the Algal and Fungal thallus. • Study the life cycles of algae. • Identify the economic importance of algae. • Learn the symbiotic Association of Lichens, Mycorrhiza.
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				•Learn the population ecology and community ecology. •Study of biogeochemical cycles.
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				•Isolation of plant genomic DNA by suitable method, Estimation of Plant DNA by DPA method.
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24	T.Y.B.Sc.	VI	BO-361: Plant Physiology & Metabolism	• Learn minerals nutrition. • Gain the knowledge of mechanism of photosynthesis. •Learn the respiration, types of respiration, mechanism of aerobic respiration. • Learn stomatal biology. • Gain knowledge of translocation in phloem. • Learn plant growth regulators and Photomorphogenesis.
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25	T.Y.B.Sc.	VI	BO-363: Plant Pathology	• Learn non-Parasitic Diseases. • Learn the fundamentals of Plant Pathology. • Learn the concepts of plant pathology. • Learn the defence mechanisms. • Identify and use methods of studying plant diseases. • Learn principles of plant diseases control.
26	T.Y.B.Sc.	VI	BO-364: Evolution & Population Genetics	• Learn the concept organic evolution. • Explain the evidence of evolution. • Learn the evolution through ages.

				• Study population genetics and evolution. • Learn the speciation an dis locating mechanisms.
27	T.Y.B.Sc.	VI	BO-365: Advanced Plant Biotechnology	• Introduce biotechnology. • Study plant tissue culture. • Identify the techniques of genetic engineering and methods of gene transfer. • Learn Cryopreservation and Germplasm Conservation. • Correlate the biotechnology and society. • Learn about microbial biotechnology and transgenic plants.
28	T.Y.B.Sc.	VI	BO-366: Plant Breeding & Seed Technology	• Define and give scope and objectives of Plant breeding. • Learn the techniques and practices of plant. • Identify and use advanced techniques in plant breeding. • Give the introduction of Seed Technology. • Give the importance of Seed Technology.
29	T.Y.B.Sc.	VI	BO-367: Practical based on BO361 &BO362	• Correlation between practical's with theory to improve the understanding. • To organize educational tour for study of flora. • To develop plant related practical skills among the students. • To research related methodology in students. • Determination of plasmolysis, stomatal index, catalase activity, Photosynthesis and paper chromatography. • To demonstration physiological experiments.
30	T.Y.B.Sc.	VI	BO-368: Practical based on BO363 &BO 364	• Study the preparation of any one culture media and culture technique for isolation of plant pathogens. • Study of any two of fungal, bacterial, viral and mycoplasma diseases. • Prepare1%Bordeauxmixture,10%Bordeaux paste and Jivamruta. • Study of Koch's Postulates, Fungicides and Microbial pesticides. • Study of geological time scale, types of fossils and evidences of Organic Evolution. • Solve numerical problems.

31	T.Y.B.Sc.	VI	BO-369: Practical based on BO365 & BO 366	• Identify the different tissue culture techniques. • Study of the equipment's used in genetic engineering and study of GM plants. • Prepare plant based nano-particles. • Demonstrate wine production from different fruits. • Demonstrate Hybridization Techniques. • Study of pollen viability and floral morphology of crops. • Study of seed moisture, germination, purity and viability to seed. • Visit to a Plant Breeding Research Centre/Seed Industry.
32	T.Y.B.Sc.	VI	SECI:BO-3610: Nursery & Gardening Management	• Study the different nursery management techniques. • Study of garden management and Sowing/raising of seed sand seedlings. • Prepare saplings.
33	T.Y.B.Sc.	VI	SECII:BO-3611: Biofertilizers	• Study the general account of the microbes used as Biofertilizers. • Study of bacterial, algal, Azolla and fungal biofertilizers. • Study the compost and manuring w.r.t. recycling, methods, Vermicomposting and applications. • Learn the marketing skills.

3)DEPARTMENT OF PHYSICS

PROGRAM OUTCOME(PO)

(2024Pattern)

PO-01	Role of Physics : The students will develop awareness and appreciation for the significant role played by physics in current societal and global issues.
PO-02	Physical Principles : Understand and apply fundamental physics principles to analyze and solve problems in various contexts.
PO-03	Research Skills : The course provides an opportunity to students to hone their research and innovation skills through internship/Academic-Project.
PO-04	Scientific inquiry : Design, conduct and present experiments to answer scientific questions and test hypotheses.
PO-05	Laboratory Skills : Comprehensive laboratory exercises will provide analytical, computational and instrumentation skills.

PO-06	Problem-solving : Apply physical principles and analytical tools to solve complex roblems in physics.
PO-07	In-depth disciplinary knowledge : The student will acquire comprehensive knowledge in vatious branches of physics.
PO-08	Interdisciplinary approach : Apply physical principles to understand and address challenges in other physics related disciplines.
PO-09	Critical and lateral thinking : This programme will develop the ability to apply the underlying concepts beyond classrooms to real life applications

(2019Pattern)

PO -01	Programme Outcome of Physics deals with a wide variety of systems, certain theories are used by all physicists.
PO-02	The science stream endeavors the spirit of scientific inquiry and analytical thinking among the students.
PO-03	It also provides opportunities to learn experimental concepts related with life science.
PO-04	Acquired the knowledge with facts and figures related to various subjects in pure sciences such as Physics.
PO-05	Understood the basic concepts, fundamental principles, and the scientific theories related to various scientific phenomena and their relevancies in the day-to-day life.
PO-06	Each of these theories were experimentally tested numerous times and found to be an adequate approximation of nature.
PO-07	Physics uses mathematics to organize and formulate experimental results.
PO-08	From those results, precise or estimated solutions, quantitative results from which new predictions can be made and experimentally confirmed or negated.
PO-09	The results from physics experiments are numerical measurements.

PROGRAM SPECIFIC OUTCOME(PSO)

(2024Pattern)

PSO -01	To endeavour towards creating a basic appreciation for the physical world around us.
PSO-02	To inculcate the spirit of inquiry and inquisitiveness for the phenomena occurring in the physical world.
PSO-03	To develop a habit of logical thinking towards a technical problem being faced.
PSO-04	To understand the basic concepts of Physics which are the foundations of various physical and technological phenomena which are encountered in daily life.
PSO-05	To apply the concepts of Physics in tackling basic and advanced problems in the field of science and technology.
PSO-06	To develop a strong foundation for research in Physics.
PSO-07	To train students in skills related to research, education, industry, and market.

(2019Pattern)

PSO-01	To foster scientific attitude, provide in-depth knowledge of scientific and technological concepts of Physics.

PSO-02	To enrich knowledge through problem solving, minor/major projects, seminars, tutorials, review of research articles/papers, participation in scientific events, study visits.
PSO-03	To familiarize with recent scientific and technological developments.
PSO-04	To create foundation for research and development in Physics.
PSO-05	To help students to learn various experimental and computational tools thereby developing analytical abilities to address real world problems.
PSO-06	To train students in skills related to research, education, industry, and market.
PSO-07	To help students to build-up a progressive and successful career in Physics.

COURSE OUTCOME(CO)
(2024Pattern)

SN	Class	Sem	Subject With Code	COURSE OUTCOMES
1	F.Y.B.Sc	I	Fundamentals of Physics-I PHY-101-T	• To understand how to apply the principle of conservation of mechanical energy to solve real life problems. • To understand concept of center of mass and find out center of mass of systems of particles and continuous distribution of matter. • To understand how to calculate rotational inertias of objects with sufficient symmetry by summing or integrating. • To understand relation between pressure and force; calculate pressure as a function of depth in liquids and use the continuity equation and Bernoulli's equation to solve problems involving fluid dynamics.
2	F.Y.B.Sc	I	General Physics Lab-I PHY-102-P	• To understand the method to determine acceleration due to gravity "g" by using Bar Pendulum. • To understand the method to determine the moment of inertia of Disc by Torsional oscillations. • To understand the method to determine Planck's Constant.

3	F.Y.B.Sc	I	Experimental Skills in Physics SEC-101-PHY-P	• To understand working principles of various measuring instruments. • To acquire the scientific information of various physical and electrical instruments used in physics practical. • To understand and identify the errors in instruments and analyze them.
4	F.Y.B.Sc	I	Physics of Daily Life OE-101-PHY-T	• To understand physics on a deeper level and to use basic physics concepts to navigate regular life. • To understand essential scientific knowledge and skills for life-long learning. • To understand earth's atmosphere and related phenomena. • To solve simple physics related problems.
5.	F.Y.B.Sc	I	Environment Education–I VEC–101-T	• To describe how human activities impact the environment. • To understand the principles of sustainable development and resource management. • To analyze local, regional, and global environmental issues and their effects. • To evaluate different strategies for conserving biodiversity and ecosystems.
6	F.Y.B.Sc	II	Fundamentals of Physics-II PHY-151-T	• To understand the basic outcomes of Thermodynamics and laws of thermodynamics. • To identify different states of the system and their dependence on various thermodynamic variables. • To understand different thermodynamic processes and their applications. • To understand concept of electricity and magnetism.
7	F.Y.B.Sc	II	General Physics Lab-II PHY-152-P	• To understand the Coefficient of Thermal Conductivity by Lee's Method. • To determine the specific heat of graphite. • To study Kirchoff's current and voltage law. • To understand the I-V characteristics

				of p-n junction and zener diode.
8	F.Y.B.Sc	II	Basic Lab Electric Devices and Circuits SEC-154-PHY-P	• To understand the basic concepts of electric elements and their functions. • To provide adequate knowledge about the industrial applications of electric instruments. • To understand about devices and systems that use electricity and magnetism and their design and application.
9	F.Y.B.Sc	II	Maintenance and Repairing of Physics Lab Equipment OE-152-PHY-P	• To develop an awareness pf Lab equipment and Electronic Components. • To understand basic principles of physical instruments. • To apply the above knowledge for the repair of instruments. • To identify the importance of electronic waste management.
10	F.Y.B.Sc	II	Environment Education-II VEC-151-T	• To identify various types of environmental pollution and their impacts on health. • To understand the basic concepts of climate change, including its causes and effects. • To evaluate various environmental management practices and their effectiveness. • To apply the principles of key environmental treaties and legislation to case studies.

(2019Pattern)

SN	Class	Sem	Subject With Code	COURSE OUTCOME
1	F.Y.B.Sc	I	Mechanics and Properties of Matter PHY-111	• To understand the concept of motion displacement velocity Newtons laws of motion. • To understand Work and Energy, Work done with varying force. • To demonstrate Fluid mechanics, Bernoulli's Principle, viscosity. • To understand property of matter, stress and strain, Hook's law, young's modulus. solving the problem.
2	F.Y.B.Sc	I	Physics Principles and Application PHY-112	• To understand the general structure of atom, spectrum of hydrogen atom. • To understand the atomic excitation

				and LASER principles. • To understand the bonding mechanism and its different types. • To demonstrate an understanding of electromagnetic waves and its spectrum. • Understand the types and sources of electromagnetic waves and applications. • To demonstrate quantitative problem solving skills in all the topics covered.
3	F.Y.B.Sc	I	Physics Laboratory-IA PHY-113	• To train students in skills related to research, education, industry, and market. • To help students to build-up a progressive and successful career in Physics. • Study and use of various measuring instrument such as vernier caliper, micrometer screw Gauge, Travelling microscope. • Study of various practical related to research level such as LASER ,Spectrometer, Flat spiral spring with moment of inertia of disc, Coefficient of viscosity angle of prism.
4	F.Y.B.Sc	II	Heat and Thermodynamics PHY-121	• To understand thermodynamic state, Van Der Waal's equation with study of laws of thermodynamic. • To understand the concept of Heat transfer mechanism, Study the different types of heat engine such as Carnot's cycle, Diessel otto cycle ,refrigerator Principles, Air conditioner. • To study the thermometry, Gas filled thermometer, bimetallic thermometer, Platinum resistance thermometer, thermocouple.
5	F.Y.B.Sc	II	Electricity and Magnetism PHY-122	• To understand the concept of the electric force, electric field and electric potential for stationary charges. • Able to calculate electrostatic field and potential of charge distributions using Coulomb's law and Gauss's law. • To understand the dielectric phenomenon and effect of electric

				field on dielectric. • To Study magnetic field for steady currents using Biot-Savart and Ampere's Circuital laws. • To study magnetic materials and its properties. • Demonstrate quantitative problem solving skills in all the topics covered.
6	F.Y.B.Sc	II	Physics Laboratory-1B PHY-123	• Study of thermocouple, specific heat oh gravity, thermal conductivity of lee's method, Carnot's cycle. • Design charging and discharging of capacitor LR circuit, Kirchhoff's law, Diode characteristics, frequency of AC mains.
7	S.Y.B.Sc.	III	Mathematical Methods in Physics I PHY-231	• Understand the complex algebra useful in physics courses • Understand the concept of partial differentiation. • Understand the role of partial differential equations in physics • Understand vector algebra useful in mathematics and physics • Understand the singular points of differential equation.
8	S.Y.B.Sc.	III	Electronics II PHY-232	• Apply laws of electrical circuits to different circuits. • Understand the properties and working of transistors. • Understand the functions of operational amplifiers. • Design circuits using transistors and operational amplifiers. • Understand the Boolean algebra and logic circuits.
9	S.Y.B.Sc.	III	Physics Lab-2A PHY-233	• Study of BAR pendulum, Compound pendulum with instruments. • Use various instruments and equipment. Design experiments to test a hypothesis and/or determine the value of an unknown quantity.
10	S.Y.B.Sc.	IV	Oscillations, Waves and Sound PHY-241	• Understand the physics and mathematics of oscillations. • Solve the equations of motion for simple harmonic, damped, and forced oscillators. • Formulate these equations and understand their physical content in a

				variety of applications, Describe oscillatory motion with graphs and equations, and use these descriptions to solve problems of oscillatory motion. • Explain oscillation in terms of energy exchange, giving various examples. Solve problems relating to undamped, damped and force oscillators and superposition of oscillations. • Understand the mathematical description of travelling and standing waves. Recognize the one-dimensional classical wave equation and solutions to it.
11	S.Y.B.Sc.	IV	Optics PHY-242	• Acquire the basic concepts of wave optics. • Describe how light can constructively and destructively interfere. Explain why a light beam spreads out after passing through an aperture. • Summarize the polarization characteristics of electromagnetic waves. Appreciate the operation of many modern optical devices that utilize wave optics . • Understand optical phenomena such as polarization, birefringence, interference and diffraction in terms of the wave model. • Analyze simple examples of interference and diffraction phenomena. Be familiar with a range of equipment used in modern optics.
12	S.Y.B.Sc.	IV	Physics Lab-2B PHY-243	• Use various instruments and equipment. Design experiments to test a hypothesis and/or determine the value of an unknown quantity. • Investigate the theoretical background to an experiment. Set up experimental equipment to implement an experimental approach. • Analyze data, plot appropriate graphs and reach conclusions from your data analysis. • Work in a group to plan, implement and report on a project/experiment. Keep a well-maintained and instructive laboratory logbook.

13	T.Y.B.Sc.	V	Mathematical Method in Physics-II PHY-351	• Student will get information about various co-ordinate systems for solving physics • Student will able to explain different problems between Newtonian & Einstein relativity. • Student can solve physics problems using differential equations. • Student will know the important of Special function in physics & their solutions.
14	T.Y.B.Sc.	V	Electrodynamics PHY-352	• Student will be able to solve problems on electric intensity & potentials using law of electrostatics. • Student will explain generation of magnetic field by electric currents. • Student will interpret the meaning of the Maxwell's equations in magnetic & dielectric media.
15	T.Y.B.Sc.	V	Classical Mechanics PHY-353	• Student will use conservation of energy & linear as well as angular momentum to solve dynamic problems. • Student will able to solve problems related to Newton's laws, Kepler's laws & their applications in planetary motion. • Student can explain types of scattering & get idea of canonical Transformation for solving problems in mechanics. • Student may apply Lagrangian & Hamiltonian equations to solve these problems.
16	T.Y.B.Sc.	V	Atomic and Molecular Physics PHY-354	• Student will explain various atomic models & their assumption as well as applications. • Student can get idea of different types of coupling. • Student will able to develop Zeeman effect set up. • Student will know idea of rotational & vibrational spectra. • Student can explain Raman spectroscopy & their applications.

17	T.Y.B.Sc.	V	C-Programming & Computational Physics PHY-355	• Student will know the basic idea of algorithm, flowchart, syntax of C-programming language reserve words constant, variables, operators, arrays, pointers, functions etc. • Student will solve problems in Physics using different Computation methods such as Newton Rhason method, Bisection method, Trapezoidal rule, Simpson's rule etc. • Student will know the basic graphic commands to draw different figures. • Student can write C-program for any problem in physics.
18	T.Y.B.Sc.	V	Elements of Material Science PHY-356	• The student will explain electric, mechanical & thermal properties of materials. • Student will study defect in solid like line, surface & volume defects. • Student will know diffusion mechanism according to Fick's law. • Student studies phases of metals & explain CRSS(Critical Resolved Shear stress), Plastic deformation. • Student will know polymerization process. • Student will know about ceramic materials by addition & condensation methods. • For phase diagram student will know lever rule & Gibb's phase rule & phases of substance. • Student will know about smart materials along with their properties & applications.
	T.Y.B.Sc.	V	Energy Studies PHY-3510H	• Students become capable of conduction energy audits and give consultancy in that field. • Students can design different types of solar heaters for small domestic as well as large scale community level applications. • Students acquire skills to implement solar P-V systems at domestic levels as well as for office premises and educational institutions. Students

				become able to start their own enterprise in net metering. • Students get ideas and hence become self-employed in the field of design, production, commissioning and implementation of bio-mass energy sources , bio-gas plants, gasifiers, wind mills, hybrid systems etc. • Students can go for research in the fields of super-capacitors, battery technologies, fuel cells and material synthesis for implementation of these technologies. • Students become successful entrepreneurs in the energy field. Students strive to make the regions where they live.
19	T.Y.B.Sc.	V	Physics Work shop Skill PHY-3511K	• This course is to get exposure with various aspects of instruments and their usage through hands-on mode. • After completion of this course students will able to handle and test various instruments.
20	T.Y.B.Sc.	V	Physics Lab-3A PHY-357	• Student will get knowledge by verifying law's of physics after performing experiment in the laboratory.
21	T.Y.B.Sc.	V	Physics Lab-3B PHY-358	• Student will get knowledge by verifying law's of physics after performing experiment in the laboratory.
22	T.Y.B.Sc.	V	Project-I PHY-359	• Student will get idea of research work by completing project in the laboratory and can draw the conclusion of the project.
23	T.Y.B.Sc.	VI	Solid State Physics PHY-361	• Student will know various types of crystal structures & the properties. • X-ray diffractions techniques for analysis of materials. • Theoretical knowledge about band of metals, insulator & semiconductors. • Student will know different magnetic materials, their characteristics& uses.
24	T.Y.B.Sc.	VI	Quantum Mechanics PHY-362	• Student will get basic knowledge of classical & quantum mechanics & comparison of two.

				• Get idea of wave function & its normalization. • Student can derive Schrodinger's time dependent & time-independent equations & can apply them to solve problems in physics & get appropriate solutions. • Student will get the idea of uncertainty principle &application of it. • Student will know operators in quantum mechanics & their properties to find expectation values. • Student can solve different properties of commutator operators. • Student will get idea of parity of functions. • Student can obtain eigen vale & eigen functions.
25	T.Y.B.Sc.	VI	Thermodynamics & Statistical Physics PHY-363	• Student will explain assumptions of Kinetic theory of gases. • Student will explain the physical significance of Maxwell's equations and get idea of statistical concepts for solving physics problems. • Student can calculate density states, probability using statistical laws. • Student will know different types of ensembles used in statistics. • Student will get idea of classical and quantum statics. • Student will get knowledge of skill to use statistical physics method • Understand the Boltzmann distribution, Gibb's distribution, Fermi Dirac and Bose Einstein distribution to solve Physics problem.
26	T.Y.B.Sc.	VI	Nuclear Physics PHY-364	• Student will get idea of nuclear and their properties. • Student will explain radioactivity & its applications. • Students will know the fundamental properties of nuclear forces, particle accelerators and detectors.

				• Student will get information about energy generation using nuclear reactions and can calculate the parameters of nuclear reaction such as packing fraction. • Student will able to demonstrate A knowledge and broad understanding of nuclear physics.
27	T.Y.B.Sc.	VI	Electronics-II PHY-365	• Student will explain different types of diode and their applications. • Student will classify amplifiers and able to design different types of amplifiers. • Student will know applications of Op-Amp. Such as integrator, differentiator, adder, subtractions. • Student will explain block diagram and applications of time 555. • Student can explain different types of power supply (723, 78XX, 79XX etc). • Design of law higher voltage power supplies. • Student can explain adder, subtractor, multiplexer, demultiplexer using logic gates, • Use of Flip-flops, counters and registers.
28	T.Y.B.Sc.	VI	Renewable Energy Sources-II PHY-366	• Students become capable of conduction energy audits and give consultancy in that field. • Students can design different types of solar heaters for small domestic as well as large scale community level applications. • Students acquire skills to implement solar P-V systems at domestic levels as well as for office premises and educational institutions. Students become able to start their own enterprise in net metering. • Students get ideas and hence become self-employed in the field of design, production, commissioning and implementation of bio-mass energy sources , bio-gas plants, gasifiers, wind mills, hybrid systems etc.

				• Students can go for research in the fields of super-capacitors, battery technologies, fuel cells and material synthesis for implementation of these technologies. • Students become successful entrepreneurs in the energy field. • Students strive to make the regions where they live and work self-sufficient in generating and fulfilling their own energy needs using different energy solutions.
29	T.Y.B.Sc.	VI	**Solar PV System: Installation, Repairing and Maintenance** PHY-3610	• In this skill oriented course, student will study basics of solar photovoltaic (PV)cells, modules, and system components. • Design and sizing of off-grid PV system for homes, apartments as well as commercial offices. • Understanding energy conversion from sunlight to electricity, and working with solar conversion equipment. • This Course will hands on experience needed to become self-employed. • Learn basics of light conversion in electricity. • Analyzed of MSEB electricity bill and design and sizing of off-grid PV system • Participants will learn about solar PV module and batteries used in solar PV plant.
30	T.Y.B.Sc.	VI	Instrumentation for Agriculture PHY-3611	• To make students familiar with the constructions and working principle of microprocessor • To make students aware about microprocessor • After successful completion of this course students are supposed to develop their own applications/ mini/ tiny projects using microcontroller.
31	T.Y.B.Sc.	VI	Physics Lab-4A PHY-367	• Student will get knowledge by verifying law's of physics after

				performing experiment in the laboratory. • Understand the thermodynamics & statistical physics experiments with details. • Understand the nuclear physics experiments with details.
32	T.Y.B.Sc.	VI	Physics Lab-4B PHY-368	• Student will get knowledge by verifying law's of physics after performing experiment in the laboratory. • Understand the basic and advanced electronics experiments with details. • Understand the acoustics and lasers experiments with details.
33	T.Y.B.Sc.	VI	Project-II PHY-369	• Student will get idea of research work by completing project in the laboratory and can draw the conclusion of the project.

4)DEPARTMENT OF ZOOLOGY

PROGRAM OUTCOME(PO)
(2024Pattern)

	Program outcome-
PO-1.	**1. Knowledge and skills on the topic :** i. In-depth knowledge of the major concepts, theoretical principles and experimental skills of zoology and its various fields, including biodiversity, anatomy, physiology, biochemistry, bio-nanotechnology, ecology, evolutionary biology, cell biology, molecular biology, immunology, genetics, as well as some other areas of applied research such as wildlife conservation and management, beekeeping, sericulture, vermiculture, neuroscience, aquatic biology, fisheries science, animal breeding, bio-informatics and research methodology, etc.

	ii. Interdisciplinary knowledge of life sciences, environmental sciences, and related bio chemical sciences. iii. Learn about the various techniques, tools, and computer software used to analyze the forms and functions of animals.
PO-2.	**Skillful communication :** Ability to communicate complex zoological information effectively and efficiently.
PO-3.	**Critical thinking and problem-solving skills :** The ability to rationally analyze and solve animal science issues without relying on hypotheses and guesswork.
PO-4.	**Logical thinking and reasoning :** Ability to search for solutions and solve them logically by experimenting and processing the data manually or by using softwares
PO-5.	**Team spirit and leadership qualities :** Ability to identify and mobilize the resources required for the project and management of the project responsibly while adhering to ethical scientific concern and bio-safety protocols.
PO-6.	**Digital efficiency :** Ability to use computers and other tools for biological simulations, calculations, appropriate bio-statistical software, and research tools to locate, retrieve, and evaluate zoology-related data.
PO-7.	**Ethical awareness and reasoning :** Avoid unethical behaviour such as data falsification,

	forgery or deception, plagiarism and value environmental and sustainability issues.
PO-8.	**Lifelong learning :** Capable of independent, self-directed learning with the aim of personal and social development.
PO-9.	**Entrepreneurship qualities :** Develop entrepreneurship qualities as this course contains almost all branches of applied zoology. One can establish a start up project by learning various courses.
PO-10	**Advanced education :** Students will be able to develop their mind with some advanced and superior knowledge, research outcomes and also the new as well as easy system of education. This will make them more reliable and capable in the world to lead the nation.

(2019Pattern)

PO -01	Acquired the knowledge with facts and figure related to zoology,
PO-02	Understood the basic conept of fundamental principles, and the scientific theory related to various scientific phenomenon and their relavencies in the day today life,
PO-03	Acquired the skill in handling scientific instruments , and planning and performing in laboratory experiment,
PO -04	The skills of observation and drawing logical inference from the scientific experiment,
PO-05	Analized the given scientific data critically and systematically and the ability to draw the objective and conclusion.
PO-06	Being able to think creatively (Divergently and convergent) to propose novel ideas in explaining facts a and the figure or providing new solution to the problem,
PO -07	Realized hoe development in any science subject help in the development in the others science subject and vice versa and how interdisciplinary approach help in providing better solution and new ideas for the sustainable development.

PO-08	Developed scientific outlook not only with respect to science subject but also in all aspects related to life
PO-09	Realised that knowledge of subject in other faculty such as humanities, performing arts , social science etc . can have great and effective influence which inspire in evolving in new scientific theory and invention,
PO -10	Embibed ethical , moral and social values in personal and social life leading to highly cultured and civilized personality,
PO-11	Developed various communication skill such as reading listening and speaking etc. Which will help in expressing ideas and views clearly and effectively,
PO-11	Realised the persuit of knowledge is a life long activity and in combination with untiring efforts and positive attitude and other necessary qualities leads towards the successful life,
PO-12	Developed flair by participating in various social and cultural activities voluntarily, in order to spread knowledge, creating awareness about the social evils, blind faith , etc

PROGRAM SPECIFIC OUTCOME(PSO)
(2024Pattern)

	Program specific outcome-
PSO-1	After completion of this course students will be able to contribute as policy makers in biodiversity conservation, animal preservation and environment protection.
PSO-2	Equip with the knowledge of animal classification and diversity, ecology and economic importance of animals.
PSO-3	Acquire the advanced concepts in insect rearing and various animal breedings for the food security of human beings.
PSO-4	Inculcate the traditional knowledge of using various animal based products in human healthcare system
PSO-5	Adapt scientific research techniques in various applied branches of Zoology for sustainable development.

PSO-6	Perform procedures as per laboratory standards in the areas of Taxonomy, Physiology, Ecology, Cell biology, Genetics, Applied Zoology, Toxicology, Entomology, Sericulture, Biochemistry, Fish biology, Animal breeding and Clinical Pathology.
PSO-7	Zoology course also provide a knowledge of applied subjects to develop various skills to make a career and become an entrepreneur in the field of aquatic biology, sericulture, apiculture, vermiculture, prawn culture, dairy management, animal breeding and management, wildlife conservation and management, wildlife photography etc.
PSO-8	Analyze the relationships among animals, plants, and microbes.
PSO-9	Understand and analyze the ecological and evolutionary significance of different taxa of animals.
PSO-10	Analyze the mechanisms involved in life processes up to the molecular level.
PSO-11	Gains knowledge about research methodologies, effective communication and skills of problem solving methods.
PSO-12	Contributes the knowledge for Nation building.

(2019Pattern)

PSO -01	Student get the knowledge of animal science from primitive to highly evolved animal group, that is breeding and management of the live stock animal such as cattle, sheep ,fishery ,lac, apiculture, etc.
PSO-02	It prepare the student for the carrier opportunities in the field of animal breeding, food production of animal, animal agriculture business, animal behavior and welfare.
PSO-03	The curriculum highlights the potential of various branches to become an entrepreneur.

PSO -04	With the help of practical the students get equipped with the skills related to the laboratory as well as with the field studies.
PSO-05	With the help of practical the students get equipped with the skills related to the laboratory as well as with the field studies.
PSO-06	Students developed interest and foundation for further studies in zoology.
PSO-07	Students learn about the conversation and sustainable use of biodiversity.
PSO-08	Subject knowledge help the student for taking up the successful carrier in zoology

COURSE OUTCOME(CO)
(2024Pattern)

Sr.No.	Class	Sem	Course title	Course outcome
01	**F.Y.B.Sc.**	**I**	**ZOO - 101 - T : Genetics and Medical Zoology (T)**	**1.** Apply Mendelian genetic principles to predict outcomes of genetic crosses, interpret pedigrees and understand the basics of genetic inheritance
				2 : Recognize and explain the inheritance patterns and molecular basis of common genetic disorders, including both Mendelian and complex traits
				3 : Understand the concept of non - Mendelian genetics.
				4 : Concept and characteristics of multiple alleles, ABO blood group system, Inheritance of Rh antigen, Erythroblastosis foetalis and their medicolegal importance.
				5 : Understand the structure of chromosomes, chromatin and its types, giant chromosomes and chromosomal aberrations
				6 : Successfully solve genetic problems using Punnett squares, probability calculations and pedigree analysis

				7 : Understand basic concepts of medical zoology.
				8 : Understand different epidemic, vector borne and microbial diseases in humans
				9 : Understand about investigations and treatments of human physiological disorders.
02	**F.Y.B.Sc.**	**I**	**ZOO - 102 - P : Practicals in Genetics and Medical Zoology (P)**	**1 :** Calculate and interpret monohybrid, dihybrid, test and back cross ratios based on hypothetical data.
				2 : Use collected data to understand the inheritance patterns of Mendelian traits.
				3 : Identify and describe the chromosomal composition of a normal human karyotype.
				4 : Perform blood typing and interpret blood group results.
				5 : Perform to understand study of facultative heterochromatin from humans
				6 : Learn an experiment to know the structure of polytene chromosomes

				7 : Learn various vector borne as well as protozoan diseases and their control measures.
				8 : Learn scientific approach or techniques used in clinical laboratories to investigate various diseases and will be skilled to work in research laboratories.
				9 : Understand the human immune system and its response to the pathogen.
				10 : Measurements of blood pressure under normal and stressed condition.
03	**F.Y.B.Sc**	**I**	**OE - 101 - ZOO : Apiculture -T**	**1 :** Students will know about different species of honey bees and their diseases and enemies.
				2 : Students will gain skill of rearing honey bees.
				3 : Students will be able to apply knowledge of bee economy in setting up their own apiary and they can be entrepreneur in this field.
				4 : Acquire knowledge about different species and casts of the honey bees.
				5 : Aware about economic importance of honey bees.

				6 : Identify role of honey bees in nature and in agricultural productivity
				7 : Understand the basics about beekeeping tools, equipment, and managing beehives
				8 : Acquire knowledge about distribution of species of honey bees
04	**F.Y.B.Sc**	**I**	**SEC - 101 - ZOO Vermiculture Management - T**	**1 :** Acquire a critical knowledge on the role of earthworms in making organic matter from biodegradable wastes.
				2 : Understand the biology of some important species of earthworms used in vermiculture.
				3 : Acquire skills in production of vermicompost.
				4 : Explain benefits and problems with vermiculture and vermicompost.
				5 : Become an entrepreneur by culturing earthworms.
				6 : Acquire a knowledge about life cycle of earthworm
				7 : Understand economics importance of earthworm.

				8 : Identify enemies and diseases of earthworm.

(2019Pattern)

SN	Class	Sem	Subject With Code	COURSE OUTCOME
1	F.Y. B.Sc.	I	Animal diversity-I (ZO-111)	1. The student will be able to understand classify and identify the diversity of animals. 2. The student understands the importance of classification of animals and classifies them effectively using the six levels of classification. 3. The student knows his role in nature as a protector, preserver and promoter of life which he has achieved by learning, observing and understanding life.
2			Paper-II ZO-112 Animal Ecology	1.The learners will be able to Identify and critically evaluate their own beliefs, values and actions in relation to professional and societal standards of ethics and its impact on ecosystem and biosphere due to the dynamics in population. promote betterment of environment. 2.To understand anticipate, analyse and evaluate natural resource issues and act on a lifestyle that conserves nature. 3.The Learner understands and appreciates the diversity of ecosystems and applies beyond the syllabi to understand the local lifestyle and problems of the community. 4.The learner will be able to link the intricacies of food chains, food webs and link it with human life for its betterment and for non-exploitation of the biotic and abiotic components. 5.The working in nature to save environment will help development of leadership skills to promote betterment of environment.
3			Practical ZO-113	1.student will be able to identify the lower nonchordateanimlas. 2.student will learn how unicellular organism reproduce 3.student will learn what are the impuriries present in the water and how to estimate them

4	S.Y.B.Sc.	I	Animal Systematics and Diversity-III ZO-231	1. The students will be able to understand, classify and identify the diversity of higher vertebrates. 2. The students will able to understand the complexity of higher vertebrates 3. The students will be able to understand different life functions of higher vertebrates. 4. The students will be able to understand the linkage among different groups of higher vertebrates. 5. The student will become aware regarding his role and responsibility towards nature as a protector, to understand his role as a trustee and conservator of life which he has achieved by learning, observing and understanding life.
5			Applied zoology-I ZO-234	1. The learner understands the basics about beekeeping tools, equipment, and managing beehives. 2. The learner understands the basic information about fishery, cultural and harvesting methods of fishes and fish preservation techniques.
6			Practical ZO-233	1.Student will get acquinted with the Animal group such as protochordate ,Pisces,Amphibia, 2.Student will come to know the types of fins,Scales and tail in fish. 3.Student will learn about rearing of silk worm 4.Student will understand the different types of inect that damages the crop and how to control them.
7	F.Y.B.Sc.	II	Animal Diversity-II ZO-121	1. The student will be able to understand classify and identify the diversity of animals. 2. The student understands the importance of classification of animals and classifies them effectively using the six levels of classification. 3. The student knows his role in nature as a protector, preserver and promoter of life which he has achieved by learning, observing and understanding life.
8			Cell Biology ZO-122	1.The learner understands and compares between the prokaryotic and eukaryotic system and extrapolates the life to the aspect of development. 2.The dynamism of bio membranes indicates the dynamism of life. Its working mechanism and precision are responsible for our performance in life.

				3.The cellular mechanisms and its functioning depends on endo-membranes and structures. They are best studied with microscopy.
9			Practical ZO-123	1.student will be able to identify the Higher nonchordateanimlas. 2.student get acquainted with the diversity of mouth parts in insect. 3.student will come to know how to rear the lac insect a,earthworm honey bees for the production of lac,vermicompost and honey.
10	S.Y. B.Sc.	II	Animal Systematics And Diversity-IV ZO-241	1.The students will be able to understand the linkage among different groups of higher vertebrates. 2. The student will become aware regarding his role and responsibility towards nature as a protector, to understand his role as a trustee and conservator of life which he has achieved by learning, observing and understanding life.
11			Applied zoology-II ZO-242	1. The learner understands the biology, varieties of silk silkworms and the basic techniques production. 2. The learner understands the types of agricultural pests, Major insect pests of agricultural importance and Pest control practices.
12			Practical ZY-243	1. student will learn how to distinguish between poisonous and non-poisonous snake. 2.student will learn the diversity of beek and feet in birds 3.from the study of morphology and physiology of rat they will understand the human system. 4.from the study of morphology and physiology of rat they will understand the human system. 4.study of pisciulture help them to start their own business.

5)DEPARTMENT OF MATHEMATICS

PROGRAM OUTCOME(PO)
(2024Pattern)

PO-01	Enhance their logical thinking and apply advanced mathematical concepts to solve complex problems.
PO-02	Formulate research questions, design experiments or investigations, collect and analyze data and present their findings in a clear and coherent manner.
PO-03	Apply advanced mathematical techniques or tools to analyze and solve challenging problems encountered in mathematics and related fields.
PO-04	Formulate mathematical models that represent real-world phenomena, analyze the models using mathematical methods and interpret the results to make informed decisions or predictions.
PO-05	Develop proficiency in utilizing computational tools, software and programming languages to aid in mathematical analysis, numerical simulations and data visualization.
PO-06	Develop a strong foundation for professional growth and lifelong learning in Mathematics.

(2019Pattern)

PO-01	Enabling students to develop a positive attitude towards mathematics as an interesting and valuable subject of study
PO-02	Understand the basic concepts, fundamental principles and scientific theories related to various scientific phenomena and their relevance in the day-to-day life
PO-03	Ability to analyze a problem, identify and define the computing requirements, which may be appropriate to its solution
PO-04	Enhancing students' overall development and to equip them with mathematical modeling abilities, problem solving skills, creative talent and power of communication necessary for various kinds of employment
PO-05	Understand applications of mathematics in different fields
PO-06	Ability to pursue advanced studies and research in pure and applied mathematical science. Be prepared for life-long learning

PROGRAM SPECIFIC OUTCOME(PSO)
(2024Pattern)

PSO-01	Have a strong foundation for being research in mathematics.
PSO-02	Be able to apply mathematical skills for solving problems.
PSO-03	At least basic knowledge of programming and computational techniques as required for employment.
PSO-04	Formulate and develop mathematical arguments in a logical manner
PSO-05	Capable to analyze the results critically and apply acquired knowledge to solve the problems.
PSO-06	Have at least four different skills and capable to think and communicate in three different languages.

PSO -07	Be able prepare the models for real life problems

(2019Pattern)

PSO-01	Think in a critical manner
PSO-02	Be familiar with different areas of Mathematics
PSO-03	Know when there is a need for information, to be able to identify, locate, evaluate, and effectively use that information for the issue or problem at hand
PSO-04	Formulate and develop mathematical arguments in a logical manner
PSO-05	Acquire good knowledge and understanding in advanced areas of mathematics and software like maxima, chosen by the student from the given courses
PSO-06	Be prepared to use Mathematics, not only in the discipline of Mathematics, but also in other disciplines and in their future endeavours
PSO -07	Identify suitable existing methods of analysis, if any, and assess his/her strengths and weaknesses in the context of the problem being considered

COURSE OUTCOME(CO)
(2024Pattern)

Sr. No.	Class	Sem	Subject With Code	Course Outcome
1	F.Y.B.Sc. (NEP 2024)	I	MTS-101 : Algebra and Calculus – I	➢ The student will able to know the concept of divisibility in integers. ➢ The student will able to find Greatest Common Divisor of integers using the Euclidean algorithm. ➢ The student will able to understand the concept of Fermat?s theorem and Euler?s phi function. ➢ The student will able to understand the method of finding roots of polynomials and relationship between roots and coefficients of a polynomial. ➢ The student will able to classify real numbers and recognize various properties of real numbers. ➢ The student will able to understand the concept of limit and continuity. ➢ The student will able to draw the graphs of algebraic and transcendental functions considering limits and continuity. ➢ The student will able to apply the concept of limit and continuity for advanced study of different mathematics courses, and in physical, chemical and biological sciences.
2	F.Y.B.Sc. (NEP 2024)	I	MTS: Python-I (SEC-101)	After completion of this course, the student will be able to: ➢ To write python programs and develop a small application. ➢ To develop logic for problem solving. ➢ To be familiar about the basic constructs of programming such as data, operations, con- ditions,

				loops, functions etc. ➢ To be familiar with string and its operation. ➢ To develop basic concepts of function and terminology. ➢ To determine the methods to create and develop Python programs by utilizing the data structures like lists and tuples.
3	F.Y.B.Sc. (NEP 2024)	I	MTS : Basic Mathematics- I (OE-101)	After completion of this course, the student will be able to: ➢ To understand the concepts of numbers and integers and able to develop skills in basic operations of integers to cultivate the right understanding and regain numerical aptitude. ➢ To understand concepts of H.C.F. and L.C.M. of numbers, square root and cube Root and ability to apply in real-world problems ➢ To understand concepts of ratio, proportion, percentage and be able to cultivate the right understanding regaining numerical aptitude ➢ To understand concepts of average, profit and loss develop a logical approach toward analytical approach to real-world problems ➢ To provide a platform for the students to build the fundamentals of Basic Mathematics for competitive examination preparation strategy ➢ To establish a framework for the students to help acquire the knowledge and expertise necessary to secure employment opportunities in the government sector

4	F.Y.B.Sc Comp.Sci. (NEP 2024)	I	SEC-101-CS-P Statistical Methods for Computer Science I	After completion of the course, student will be able to ➢ Present the complex data in tabular format. ➢ Use various diagrammatic and graphical techniques to represent statistical data and interpret the data. ➢ Compute various measures of central tendency, dispersion, skewness, and kurtosis using MS-Excel and interpret the results ➢ Establish relation between variables and estimate response for given bivariate data using software and interpret the results
5	F.Y.B.Sc Comp.Sci. (NEP 2024)	I	MTC-101-T:Matrix Algebra	➢ Student will be able to work with graphs and identify certain parameters and properties of the given graphs. ➢ Student will be able perform certain algorithms, justify why these algorithms work, and give some estimates of the running times of these algorithms. ➢ Student will be able solve basic exercises of the type: given a graph with properties X, prove that the graph also has property Y. ➢ Student will be able develop an appreciation for the literature on the subject and be able to read and present results from the literature. ➢ Student will be able write cohesive and comprehensive solutions to exercises and be able to defend their arguments.

6	F.Y.B.Sc. (NEP 2024)	II	MTS-101 : Algebra and Calculus – II	➢ Understand the various types of matrices, their properties, and how to convert matrices to echelon form using elementary row operations. ➢ Learn methods to solve systems of linear equations, understand the concept of determinants, evaluate determinants by different methods, and solve problems using properties of determinants. ➢ Apply the concept of matrices and determinant to the problems in chemistry, electronics, cryptography. ➢ Understand differentiation and fundamental theorem in differentiation. ➢ Apply Mean Value Theorems and it's applications ➢ Explore the combined application of algebra and calculus to various mathematical problems.
7	F.Y.B.Sc. (NEP 2024)	II	MTS: Python-II (SEC-151)	This course will enable the students to: ➢ To write python program and develop maps using dictionary ➢ To develop logic for 2D graphics ➢ Demonstrate the use of Python in mathematics such as matrix algebra ➢ To be familiar about basic math builtin functions such as sine, cosine ,etc. ➢ To be familiar with complex numbers ➢ To write Python programs to handle matrices and vectors using NumPy
8	F.Y.B.Sc. (NEP 2024)	II	MTS: Basic Mathematics – II (OE-151)	After completion of this course, the student will be able to: ➢ To understand the concepts of Time, Work and Wages also be able to logical approach towards analytical approach data of real word problem ➢ To understand concepts of Linear Equations and ability to solve examples in finding Age in past and future ➢ To understand concepts of Simple and Compound Interest and to develop Mathematical Competence. ➢ To understand concepts of Mensuration and able to develop Mathematical competence in solving Problems ➢ To provide a platform for the students to build the fundamentals of Basic Mathematics for competitive examination preparation strategy. ➢ To establish a framework for the students to help acquire the knowledge and expertise necessary to

				secure employment opportunities in the government sector
9	F.Y.B.Sc Comp.Sci(NEP 2024).	II	MTC-151-T: Graph Theory	➢ Student will be able work with graphs and identify certain parameters and properties of the given graphs. ➢ Student will be able perform certain algorithms, justify why these algorithms work, and give some estimates of the running times of these algorithms. ➢ Student will be able solve basic exercises of the type: given a graph with properties X, prove that the graph also has property Y. ➢ Student will be able develop an appreciation for the literature on the subject and be able to read and present results from the literature. ➢ Student will be able write cohesive and comprehensive solutions to exercises and be able to defend their arguments.
10	F.Y.B.Sc Comp.Sci. (NEP 2024)	II	SEC-151-CS-P Course Title : Statistical Methods for Computer Science II	After completion of the course, student will be able to ➢ Fit second-degree curve, and exponential curves. ➢ Estimate trends by using time series data. ➢ Understand concept of probability. ➢ Estimate probabilities of standard probability distributions ➢ Perform tests based on normal, Chi-Square, t and F distributions
11	S.Y.B.Sc	III	MT-231-Calculus of Several Variables(23111)	After completion of this course, the student will be able to: ➢ Learn conceptual variations while advancing from one variable to several variables in calculus. ➢ Understand Functions of two variables, Domain and Range, ➢ Graphs, Level Curves, Functions of Three or More Variables, Limits and Continuity. ➢ Applications of multivariable calculus tools in physics, economics, optimization, and understanding the architecture of curves and surfaces in plane and space etc ➢ Understand Partial Derivatives ➢ Learn Higher Derivatives, Clairaut's Theorem, Partial Differential Equations, Wave equation, Chain Rule, Homogeneous Functions, Euler's theorem. ➢ Recognize the major classification of PDEs and the qualitative differences between the classes of equations. ➢ Be competent in solving linear PDEs using classical solution methods ➢ Understand Extreme values of functions of two

				variables. ➢ Learn Necessary conditions for extreme values, Second Derivative Test, Lagrange Multipliers ➢ Inter-relationship amongst the line integral, double and triple integral formulations. ➢ Sketch curves in Cartesian and polar coordinate systems.
12	S.Y.B.Sc	III	MT-232(A):Numerical Methods & it's applications(23112A)	After completion of this course, the student will be able to: ➢ Obtain numerical solutions of algebraic and transcendental equations. ➢ Learn about various interpolating and extrapolating methods. ➢ Define Basic concepts of operators Δ,E, ∇ ➢ Find the difference of polynomial ➢ Solve problems using Newton forward formula and Newton backward formula. ➢ Derive Newton forward formula and Newton backward interpolation formula. ➢ Apply Lagrange's Interpolation formula when difference interval are unequal ➢ Understood the concept of Numerical Differentiation (Derivatives using Newton's forward difference formula) ➢ Apply various numerical methods in real life problems ➢ Derive general quadrature formula ➢ Derive Trapezoidal rule, Simpson's 1/3 and 3/8 rules - using general quadrature formula ➢ Solve initial and boundary value problems in differential equations using numerical methods. ➢ Find the solution of ordinary differential equation of first by Taylor's Series method, Picard's method of successive ➢ approximations, Euler method, Modified Euler's methods and Runge-Kutta methods
13	S.Y.B.Sc	III	MT-233:Mathematics Practical(23113)	This course will enable the students to: ➢ Learn Maxima software. ➢ Problem solve on analytic geometry and calculus by using maxima software. ➢ Problem solving on geometry and calculus. ➢ Give the knowledge of geometry using maxima software.
14	S.Y.B.Sc.	IV	MT-241:Linear Algebra (24111)	After completion of this course, the student will be able to: ➢ Solve linear systems (using matrices)by Gauss elimination and Gauss-Jordan elimination method ➢ Understand the concepts of vector spaces, subspaces, bases, dimension and their properties.

				➢ Recognize the concepts of the term linear independence, linear dependence, basis, and dimension, and apply these concepts to various vector spaces and subspaces ➢ Understand about Row, Column and Null Space of a matrix, and Rank and nullity ➢ Discuss the linear transformations, properties and equality ➢ Understand the concepts of Kernel and range ➢ State Rank-Nullity theorem ➢ Use matrix algebra and the related matrices to linear transformations ➢ Relate matrices and linear transformations, compute eigen values and eigen vectors of linear transformations. ➢ Find the characteristic equation, eigen values and eigen vectors of a matrix. ➢ State Cayley- Hamilton theorem ➢ Learn basic Matrix Transformations in R^2 and R^3
15	S.Y.B.Sc.	IV	MT-242(B): Dynamical Systems(24112B)	After completion of this course, the student will be able to: ➢ Students understand the concept of Diagonalisation(matrices with real and distinct eigen values) ➢ Students understand the concept of Logistic Population Model ➢ Students understand the concept First-Order Equations and Planar Linear Systems ➢ Able to find eigenvectors when eigen values are complex ➢ Able to find Exponential of a matrix ➢ Students improve problem solving skills. ➢ Students will cooperate when appropriate to help each other understand the concepts of dynamical systems and to learn how to function in a work.
16	S.Y.B.Sc.	IV	MT-243: Mathematics Practical(24113)	This course will enable the students to: ➢ To demonstrate used of interpolation method in numerical analysis. ➢ Use computational techniques and algebraic skills essential for the study of systems of Linear equations, matrix algebra, vector spaces, eigen values and eigenvectors, Orthogonality and Diagonalization

(2019Pattern)

Sr. No.	Class	Sem	Subject With Code	Course Outcome
1	F.Y.B.Sc.	I	Algebra (MT-111)	After completion of this course, the student will be able to: ➢ Define Basic concepts of Set, Relations and functions. ➢ Use the division algorithm, Euclidian algorithm, in computations and proofs about the integers ➢ Learn about some important results in the theory of numbers including the prime number theorem, describe the properties of prime numbers, ➢ Show that every positive integer can be expressed as product of prime power in unique way ➢ Write a formula for the number of positive integers less than n that are relatively prime to n ➢ Define congruence and describe the properties of congruence ➢ State Chinese Remainder Theorem, Fermat's and Wilson's theorem ➢ Compute sums, products, quotients, conjugate, modulus, and argument of complex numbers · ➢ Apply De-Moivre's theorem to find the n^{th} roots of unity.

2	F.Y.B.Sc.	I	Calculus – I (MT-112)	After completion of this course, the student will be able to: ➢ Describe the Algebraic and Order Properties of R ➢ Understand absolute value function and its properties, triangle inequality and its consequences, neighborhood of a point on real line. ➢ Define of Upper bound, Lower bound, supremum, infimum of subsets of R, completeness property of R. ➢ Know Archimedean property and its consequences, the density theorem ➢ Learn to define sequence in terms of functions from $\mathbb{R}$ to a subset of $\mathbb{R}$. ➢ Recognize bounded, convergent, divergent, Cauchy and monotonic sequences and to calculate their limit superior, limit inferior, and the limit of a bounded sequence. ➢ Learn to check function is continuous understand the consequences of the intermediate value theorem for continuous functions.
3	F.Y.B.Sc.	I	MathematicsPractical (MT-113)	This course will enable the students to: ➢ Learn Maxima software. ➢ Learn to find graphs, roots and primes integer using maxima software ➢ Problem solve on algebra and calculus by using maxima software. ➢ Knowledge of application of mathematics
4	S.Y.B.Sc	III	MT-231-Calculus of Several Variables(23111)	After completion of this course, the student will be able to: ➢ Learn conceptual variations while advancing from one variable to several variables in calculus. ➢ Understand Functions of two variables, Domain and Range, ➢ Graphs, Level Curves, Functions of Three or More Variables, Limits and Continuity. ➢ Applications of multivariable calculus tools in physics, economics, optimization, and understanding the architecture of curves and surfaces in plane and space etc

				➢ Understand Partial Derivatives ➢ Learn Higher Derivatives, Clairaut's Theorem, Partial Differential Equations, Wave equation, Chain Rule, Homogeneous Functions, Euler's theorem. ➢ Recognize the major classification of PDEs and the qualitative differences between the classes of equations. ➢ Be competent in solving linear PDEs using classical solution methods ➢ Understand Extreme values of functions of two variables. ➢ Learn Necessary conditions for extreme values, Second Derivative Test, Lagrange Multipliers ➢ Inter-relationship amongst the line integral, double and triple integral formulations. ➢ Sketch curves in Cartesian and polar coordinate systems.
5	S.Y.B.Sc	III	MT-232(A):Numerical Methods & it's applications(23112A)	After completion of this course, the student will be able to: ➢ Obtain numerical solutions of algebraic and transcendental equations. ➢ Learn about various interpolating and extrapolating methods. ➢ Define Basic concepts of operators Δ,E, ∇ ➢ Find the difference of polynomial ➢ Solve problems using Newton forward formula and Newton backward formula. ➢ Derive Newton forward formula and Newton backward interpolation formula. ➢ Apply Lagrange's Interpolation formula when difference interval are unequal ➢ Understood the concept of Numerical Differentiation (Derivatives using Newton's forward difference formula) ➢ Apply various numerical methods in real life problems ➢ Derive general quadrature formula ➢ Derive Trapezoidal rule, Simpson's

				1/3 and 3/8 rules -using general quadrature formula ➢ Solve initial and boundary value problems in differential equations using numerical methods. ➢ Find the solution of ordinary differential equation of first by Taylor's Series method, Picard's method of successive ➢ approximations, Euler method, Modified Euler's methods and Runge-Kutta methods
6	S.Y.B.Sc	III	MT-233:Mathematics Practical(23113)	This course will enable the students to: ➢ Learn Maxima software. ➢ Problem solve on analytic geometry and calculus by using maxima software. ➢ Problem solving on geometry and calculus. ➢ Give the knowledge of geometry using maxima software.
7	F.Y.B.Sc	II	Analytical Geometry (MT-121)	After completion of this course, the student will be able to: ➢ Describe the various forms of equation of a plane, straight line, Sphere, Cone and Cylinder. ➢ Find the angle between planes, Bisector planes, Perpendicular distance from a point to a plane, Image of a line on a plane, Intersection of two lines ➢ Define coplanar lines and illustrate ➢ Compute the angle between a line and a plane, length of perpendicular from a point to a line ➢ Define skew lines ➢ Calculate the Shortest distance between two skew line
8	F.Y.B.Sc	II	MT-122 (Calculus II)	After completion of this course, the student will be able to: ➢ Assimilate the notions derivative of a function at a point ➢ Calculate the limit and examine the continuity of a function at a point. ➢ Apply derivative tests in optimization problems appearing in social sciences, physical sciences, life sciences and a host of other disciplines. ➢ Understand L' Hospital Rule and

				Successive Differentiation ➢ Understand the genesis of ordinary differential equations. ➢ Solve first order differential equations utilizing the standard techniques to Learn various techniques of getting exact solutions of solvable first order differential equations and linear differential equations. ➢ Grasp the concept of a general solution of a linear differential equation of an arbitrary order and also learn a few methods to obtain the general solution of such equations.
9	F.Y.B.Sc	II	Mathematics Practical (MT-123)	This course will enable the students to: ➢ Solves Problem on Calculus and analytical geometry ➢ Introduction to application of mathematics in real life. ➢ Learn to build logical concept.
10	S.Y.B.Sc.	IV	MT-241:Linear Algebra (24111)	After completion of this course, the student will be able to: ➢ Solve linear systems (using matrices)by Gauss elimination and Gauss-Jordan elimination method ➢ Understand the concepts of vector spaces, subspaces, bases, dimension and their properties. ➢ Recognize the concepts of the term linear independence, linear dependence, basis, and dimension, and apply these concepts to various vector spaces and subspaces ➢ Understand about Row, Column and Null Space of a matrix, and Rank and nullity ➢ Discuss the linear transformations, properties and equality ➢ Understand the concepts of Kernel and range ➢ State Rank-Nullity theorem ➢ Use matrix algebra and the related matrices to linear transformations ➢ Relate matrices and linear transformations, compute eigen values and eigen vectors of linear transformations. ➢ Find the characteristic equation, eigen values and eigen vectors of a

				matrix. ➢ State Cayley- Hamilton theorem ➢ Learn basic Matrix Transformations in R^2 and R^3
11	S.Y.B.Sc.	IV	MT-242(B): Dynamical Systems(24112B)	After completion of this course, the student will be able to: ➢ Students understand the concept of Diagonalisation(matrices with real and distinct eigen values) ➢ Students understand the concept of Logistic Population Model ➢ Students understand the concept First-Order Equations and Planar Linear Systems ➢ Able to find eigenvectors when eigen values are complex ➢ Able to find Exponential of a matrix ➢ Students improve problem solving skills. ➢ Students will cooperate when appropriate to help each other understand the concepts of dynamical systems and to learn how to function in a work.
12	S.Y.B.Sc.	IV	MT-243: Mathematics Practical(24113)	This course will enable the students to: ➢ To demonstrate used of interpolation method in numerical analysis. ➢ Use computational techniques and algebraic skills essential for the study of systems of Linear equations, matrix algebra, vector spaces, eigen values and eigenvectors, Orthogonality and Diagonalization

6)DEPARTMENT OF COMPUTER SCIENCE

PROGRAM OUTCOME(PO)
(2024Pattern)

PO-01	**Scientific knowledge:** Apply the knowledge of mathematics, science, and computing to the solution of complex scientific problems.
PO-02	**Problem analysis:** Identify, formulate and analyze complex scientific problems reaching substantiated conclusions using first principles of mathematics, natural sciences, and applied sciences
PO-03	**Design/development of solutions:** Design solutions for complex problems and design system components or processes that meet the specified needs with appropriate consideration for the public health and safety, and the cultural, societal, and environmental considerations.
PO-04	**Conduct investigations of complex problems:** Use research-based knowledge and research methods including design of experiments, analysis and interpretation of data, and synthesis of the information to provide valid conclusions.
PO-05	**Modern tools usage:** Create, select, and apply appropriate techniques, resources, and modern computing and IT tools including prediction and modeling to complex scientific activities with an understanding of the limitations
PO-06	**The software engineer and 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 practice.
PO-07	**Environment and sustainability:** Understand the impact of the professional software engineering solutions in societal and environmental contexts, and demonstrate the knowledge of, and need for sustainable development.
PO-08	**Ethics:** Apply ethical principles and commit to professional ethics and responsibilities and norms of the scientific practice.
PO-09	**Individual and team work:** Function effectively as an individual and as a member or leader in diverse teams, and in multidisciplinary settings.
PO-10	**Project management:** Demonstrate knowledge understanding of the scientific 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.

(2019Pattern)

PO-01	**Scientific knowledge:** Apply the knowledge of mathematics, science, and computing to the solution of complex scientific problems.
PO-02	**Problem analysis:** Identify, formulate and analyze complex scientific problems reaching substantiated conclusions using first principles of mathematics, natural sciences, and applied sciences

PO-03	**Design/development of solutions:** Design solutions for complex problems and design system components or processes that meet the specified needs with appropriate consideration for the public health and safety, and the cultural, societal, and environmental considerations.
PO-04	**Conduct investigations of complex problems:** Use research-based knowledge and research methods including design of experiments, analysis and interpretation of data, and synthesis of the information to provide valid conclusions.
PO-05	**Modern tools usage:** Create, select, and apply appropriate techniques, resources, and modern computing and IT tools including prediction and modeling to complex scientific activities with an understanding of the limitations
PO-06	**The software engineer and 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 practice.
PO-07	**Environment and sustainability:** Understand the impact of the professional software engineering solutions in societal and environmental contexts, and demonstrate the knowledge of, and need for sustainable development.
PO-08	**Ethics:** Apply ethical principles and commit to professional ethics and responsibilities and norms of the scientific practice.
PO-09	**Individual and team work:** Function effectively as an individual and as a member or leader in diverse teams, and in multidisciplinary settings.
PO-10	**Project management:** Demonstrate knowledge understanding of the scientific 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.

PROGRAM SPECIFIC OUTCOME(PSO)
(2024 Pattern)

PSO-01	Demonstrate mastery of Computer Science in the following core knowledge areas o Data Structures and Programming Languages o Databases, Software Engineering and Development o Operating System Concepts and Architecture
PSO-02	Apply problem-solving skills and the knowledge of computer science to solve real world problems
PSO-03	Develop technical project reports and present them orally among the users.

(2019Pattern)

PSO-01	Demonstrate mastery of Computer Science in the following core knowledge areas o Data Structures and Programming Languages o Databases, Software Engineering and Development o Operating System Concepts and Architecture

PSO-02	Apply problem-solving skills and the knowledge of computer science to solve real world problems
PSO-03	Develop technical project reports and present them orally among the users.

COURSE OUCOME(CO)

(2024Pattern)

SN	Class	Semester	Subject With Code	COURSE OUTCOME
1	F.Y. B.Sc. (CS) NEP	First	Problem Solving using Computer and 'C' Programming CS-101-T	• To understand the concept of Problem solving • To understand steps involved in algorithm & program development • To understand the concept of Algorithm • Develop Algorithm for simple problem • Ability to implement algorithms in the 'C' language. • Develop modular programs using control structures and arrays in 'C'.
3	F.Y. B.Sc. (CS) NEP	First	Practical course based on CS101 CS-101-P	• Able to devise pseudo code and flowchart for computational problems. • Understand how to write, debug and execute simple programs in C. •Create database tables in Postgres SQL. • Write and execute simple and nested queries.
4	F.Y. B.Sc. (CS)	Second		• Develop advanced concepts of programming using C.

	NEP		Advanced 'C' Programming CS-151-T	• Develop modular programs using control structures, pointers, arrays, strings and structures. • Design and develop solutions to real world problems using C. • To develop structured programming approach.
6	F.Y. B.Sc. (CS) NEP	Second	CS-151-P Practical	• Write debug and execute programs using advanced features in C. • • To perform advanced database operations.
7	S.Y. B.Sc. (CS)	Third	Data Structures and Algorithms – I CS 231	• Understand different methods of organizing large amount of data using data structure. • Able to choose appropriate data structure as applied to specified problem definition. • • Understand various techniques for representation of the data in the real world
8	S.Y. B.Sc. (CS)	Third	Software Engineering CS 232	• To design and conduct experiments, as well as to analyze and interpret data. • To identify, formulate, and solve engineering problems. • To analyze, design, verify, validate, implement, apply, and maintain software systems. • • Able to understand different phases of SDLC.
9	S.Y. B.Sc. (CS)	Third	CS 233 Practical course on CS 231 and CS 232	• Students will be able to use linear and non-linear data structures like stacks, queues , linked list etc. • • Student will be able to handle operations like searching, insertion, deletion, traversing mechanism etc. on various data structures.
10	S.Y. B.Sc. (CS)	Fourth	Data Structures and Algorithms – II	• To compute the complexity of various algorithms. • To understand structure of tress, graphs, etc. • To develop efficient search techniques.

			CS- 241	
11	S.Y. B.Sc. (CS)	Fourth	Computer Networks – I CS 242	• Understand basic computer network technology. • Understand and explain Data Communications System and its components. • Able to identify the different types of network topologies and protocols. • Enumerate the layers of the OSI model and TCP/IP. Explain the function(s) of each layer.
12	S.Y. B.Sc. (CS)	Fourth	Practical course on CS 241 and CS 242 CS 243	• Students will be able to use linear and non-linear data structures like stacks, queues , linked list etc. • Student will be able to handle operations like searching, insertion, deletion, traversing mechanism etc. on various data structures.
13	T.Y. B.Sc. (CS)	Fifth	Operating Systems CS-351	• To Study Processes and Thread Scheduling by operating system • Synchronization in process and threads by operating system • Memory management by operating system using with the help of various schemes
14	T.Y. B.Sc. (CS)	Fifth	Computer Networks – II CS-352	• To understand the different protocols of Application layer. • Develop understanding of technical aspect of Multimedia Systems • Develop various Multimedia Systems applicable in real time. • Identify information security goals. • Understand, compare and apply cryptographic techniques for data security.

15	T.Y. B.Sc. (CS)	Fifth	Web Technologies – I CS-353	• To study basics of PHP • To design logical code with std, PHP functions • To understand how to develop dynamic and interactive Web Page
16	T.Y. B.Sc. (CS)	Fifth	Foundations of Data Science CS-354	• Perform Exploratory Data Analysis • Obtain, clean/process, and transform data. • Detect and diagnose common data issues, such as missing values, special values, outliers, inconsistencies, and localization. • Demonstrate proficiency with statistical analysis of data. • Present results using data visualization techniques. • Prepare data for use with a variety of statistical methods and models and recognize how the quality of the data and the means of data collection may affect conclusions
17	T.Y. B.Sc. (CS)	Fifth	Object Oriented Programming using Java – I CS-355	• To understand the concept of classes, object, packages and Collections. • To develop GUI based application
18	T.Y. B.Sc. (CS)	Fifth	Theoretical Computer Science CS-356	On completion of the course, student will be able to– ● To understand the use of automata during language design. ● Relate various automata and Languages.

19	T.Y. B.Sc. (CS)	Fifth	CS-357 Practical Course based on CS - 351	• To study Process synchronization • Processes and Thread Scheduling by operating system • Memory management by operating system using with the help of various schemes
20	T.Y. B.Sc. (CS)	Fifth	CS-358 Practical Course based on CS - 353 and CS - 354	• To study how to develop dynamic and interactive Web Page • To prepare data for use with a variety of statistical methods and recognize how the quality of the data may affect conclusions. • To perform exploratory data analysis
21	T.Y. B.Sc. (CS)	Fifth	CS - 359 Practical Course based on CS - 355	• Use an integrated development environment to write, compile, run, and test simple • To develop object-oriented Java programs. • Read and make elementary modifications to Java programs that solve real-worldproblems. • Validate input in a Java program.
22	T.Y. B.Sc. (CS)	Fifth	Python Programming CS-3510	• To develop logic for problem solving using python. • To determine the methods to create and develop Python programs by utilizing the data Structures like lists, dictionaries, tuples and sets. • To be familiar about the basic constructs of programming such as data, operations, conditions, loops, functions etc. • To write python programs and develop a small application project
23	T.Y. B.Sc. (CS)	Fifth	Blockchain Technology CS-3511	On completion of the course, student will be able to– • Learn the fundamentals of Blockchain Technology. • Learn Blockchain programming • Basic knowledge of Smart Contracts and how they function.

24	T.Y. B.Sc. (CS)	Sixth	Operating Systems-II CS - 361	• To study management of deadlocks and File System by operating system • Scheduling storage or disk for processes • Distributed Operating System and its architecture and the extended features in mobile OS.
25	T.Y. B.Sc. (CS)	Sixth	Software Testing CS-362	• Understand various software testing methods and strategies. • Understand a variety of software metrics, and identify defects and managing those defects for improvement in quality for given software. • Understand design test cases and test plans, review reports of testing for qualitative software. • Understand latest testing methods used in the software industries.
26	T.Y. B.Sc. (CS)	Sixth	Web Technologies – II CS - 363	On completion of the course, student will be able to– • Build dynamic website. • Using MVC based framework easy to design and handling the errors in dynamic website.
27	T.Y. B.Sc. (CS)	Sixth	Data Analytics CS - 364	• Use appropriate models of analysis, assess the quality of input, and derive insight from results. • Analyze data, choose relevant models and algorithms for respective applications • Understand different data mining techniques like classification, prediction, clustering and association rule mining • Apply modeling and data analysis techniques to the solution of real world business problem
28	T.Y. B.Sc.	Sixth	Object Oriented	• To access open database through Java programs using Java Data Base Connectivity (JDBC) and develop the application.

	(CS)		Programming using Java – II CS- 365	• Understand and create dynamic web pages, using Servlets and JSP. • Work with basics of framework to develop secure web applications.
29	T.Y. B.Sc. (CS)	Sixth	Compiler Construction CS-366	• To understand the process of scanning and parsing of source code. • Learn the conversion code written in source language to machine language. • To study tools like LEX and YACC.
30	T.Y. B.Sc. (CS)	Sixth	Practical Course based on CS – 361 CS-367	• Management of deadlocks by operating system • File System management • Disk space management and scheduling for processes
31	T.Y. B.Sc. (CS)	Sixth	CS - 368 Practical Course based on CS - 363 and CS - 364	• Build dynamic website. • Using MVC based framework easy to design and handling the errors in dynamic website
32	T.Y. B.Sc. (CS)	Sixth	Practical Course based on CS – 365 CS - 369	• To Learn database Programming using Java • Understand and create dynamic web pages using Servlets and JSP. • Work with basics of framework to develop secure web applications
33	T.Y. B.Sc. (CS)	Sixth	Software Testing Tools CS - 3610	• To understand various software testing methods and strategies. • To understand a variety of software metrics and identify defects and managing those defects for improvement in quality for given software. • To design test cases and test plans, review reports of testing for qualitative software.

				• To understand latest testing tools used in the software industries.
34	T.Y. B.Sc. (CS)	Sixth	Project CS - 3611	• Project Planning, design, coding • Test Plan, Black Box Testing or Data Validation Test Cases. • White Box Testing or Functional Validation Test cases and results

(2019Pattern)

SN	Class	Sem	Subject With Code	COURSE OUTCOME
1	F.Y. B.Sc. (CS)	First	CS-111 Problem Solving using Computer and 'C' Programming	• To understand the concept of Problem solving • To understand steps involved in algorithm & program development • To understand the concept of Algorithm • Develop Algorithm for simple problem • Ability to implement algorithms in the 'C' language. • Develop modular programs using control structures and arrays in 'C'.
2	F.Y. B.Sc. (CS)	First	CS-112 Database Management Systems	• Describe the fundamental elements of relational database management systems • Explain the basic concepts of relational data model, entity-relationship model, relational database design, relational algebra and SQL. • Design ER-models to represent simple database application scenarios • Convert the ER-model to relational tables, populate relational database and formulate SQL queries on data. • Improve the data base design by normalization.
3	F.Y. B.Sc. (CS)	First	CS-113 Practical course based on CS101 and CS102	• Able to devise pseudo code and flowchart for computational problems. • Understand how to write, debug and execute simple programs in C. •Create database tables in Postgres SQL. • Write and execute simple and nested queries.
4	F.Y. B.Sc. (CS)	Second	CS-121 Advanced 'C' Programming	• Develop advanced concepts of programming using C. • Develop modular programs using control structures, pointers, arrays, strings and structures. • Design and develop solutions to real world problems using C. • To develop structured programming approach.

5	F.Y. B.Sc. (CS)	Second	CS-122 Relational Database Management Systems	• Able to acquire knowledge of data security and its importance. • Design E-R Model for given requirements and convert the same into database tables. • Able to use database techniques such as SQL & PL/SQL. • Understand and able to implement concept of transactions. • Use advanced database Programming concepts.
6	F.Y. B.Sc. (CS)	Second	CS-123 Practical course based on CS201 and CS202	• Write debug and execute programs using advanced features in C. • To perform advanced database operations.
7	S.Y. B.Sc. (CS)	Third	CS 231 Data Structures and Algorithms – I	• Understand different methods of organizing large amount of data using data structure. • Able to choose appropriate data structure as applied to specified problem definition. • Understand various techniques for representation of the data in the real world
8	S.Y. B.Sc. (CS)	Third	CS 232 Software Engineering	• To design and conduct experiments, as well as to analyze and interpret data. • To identify, formulate, and solve engineering problems. • To analyze, design, verify, validate, implement, apply, and maintain software systems. • Able to understand different phases of SDLC.
9	S.Y. B.Sc. (CS)	Third	CS 233 Practical course on CS 231 and CS 232	• Students will be able to use linear and non-linear data structures like stacks, queues , linked list etc. • Student will be able to handle operations like searching, insertion, deletion, traversing mechanism etc. on various data structures.
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12	S.Y. B.Sc. (CS)	Fourth	CS 243 Practical course on CS 241 and CS 242	• Students will be able to use linear and non-linear data structures like stacks, queues , linked list etc. • Student will be able to handle operations like searching, insertion, deletion, traversing mechanism etc. on various data structures.
13	T.Y. B.Sc.	Fifth	CS-351	• To Study Processes and Thread Scheduling by operating system

	(CS)		Operating Systems	• Synchronization in process and threads by operating system • Memory management by operating system using with the help of various schemes
14	T.Y. B.Sc. (CS)	Fifth	CS-352 Computer Networks - II	• To understand the different protocols of Application layer. • Develop understanding of technical aspect of Multimedia Systems • Develop various Multimedia Systems applicable in real time. • Identify information security goals. • Understand, compare and apply cryptographic techniques for data security.
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16	T.Y. B.Sc. (CS)	Fifth	CS-354 Foundations of Data Science	• Perform Exploratory Data Analysis • Obtain, clean/process, and transform data. • Detect and diagnose common data issues, such as missing values, special values, outliers, inconsistencies, and localization. • Demonstrate proficiency with statistical analysis of data. • Present results using data visualization techniques. • Prepare data for use with a variety of statistical methods and models and recognize how the quality of the data and the means of data collection may affect conclusions
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18	T.Y. B.Sc. (CS)	Fifth	CS-356 Theoretical Computer Science	On completion of the course, student will be able to– ● To understand the use of automata during language design. ● Relate various automata and Languages.
19	T.Y. B.Sc. (CS)	Fifth	CS-357 Practical Course based on CS - 351	• To study Process synchronization • Processes and Thread Scheduling by operating system • Memory management by operating system using with the help of various schemes
20	T.Y. B.Sc. (CS)	Fifth	CS-358 Practical Course based on CS - 353 and CS - 354	• To study how to develop dynamic and interactive Web Page • To prepare data for use with a variety of statistical methods and recognize how the quality of the data may affect conclusions. • To perform exploratory data analysis
21	T.Y. B.Sc. (CS)	Fifth	CS - 359 Practical Course based on CS - 355	• Use an integrated development environment to write, compile, run, and test simple • To develop object-oriented Java programs. • Read and make elementary modifications to Java programs that solve real-worldproblems.

				• Validate input in a Java program.
22	T.Y. B.Sc. (CS)	Fifth	CS-3510 Python Programming	• To develop logic for problem solving using python. • To determine the methods to create and develop Python programs by utilizing the data Structures like lists, dictionaries, tuples and sets. To be familiar about the basic constructs of programming such as data, operations, conditions, loops, functions etc. • To write python programs and develop a small application project
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25	T.Y. B.Sc. (CS)	Sixth	CS-362 Software Testing	• Understand various software testing methods and strategies. • Understand a variety of software metrics, and identify defects and managing those defects for improvement in quality for given software. • Understand design test cases and test plans, review reports of testing for qualitative software. • Understand latest testing methods used in the software industries.
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27	T.Y. B.Sc. (CS)	Sixth	CS - 364 Data Analytics	• Use appropriate models of analysis, assess the quality of input, and derive insight from results. • Analyze data, choose relevant models and algorithms for respective applications • Understand different data mining techniques like classification, prediction, clustering and association rule mining • Apply modeling and data analysis techniques to the solution of real world business problem
28	T.Y. B.Sc. (CS)	Sixth	CS- 365 Object Oriented Programming using Java – II	• To access open database through Java programs using Java Data Base Connectivity (JDBC) and develop the application. • Understand and create dynamic web pages, using Servlets and JSP. • Work with basics of framework to develop secure web applications.

29	T.Y. B.Sc. (CS)	Sixth	CS-366 Compiler Construction	• To understand the process of scanning and parsing of source code. • Learn the conversion code written in source language to machine language. • To study tools like LEX and YACC.
30	T.Y. B.Sc. (CS)	Sixth	CS-367 Practical Course based on CS - 361	• Management of deadlocks by operating system • File System management • Disk space management and scheduling for processes
31	T.Y. B.Sc. (CS)	Sixth	CS - 368 Practical Course based on CS - 363 and CS - 364	• Build dynamic website. • Using MVC based framework easy to design and handling the errors in dynamic website
32	T.Y. B.Sc. (CS)	Sixth	CS - 369 Practical Course based on CS - 365	• To Learn database Programming using Java • Understand and create dynamic web pages using Servlets and JSP. • Work with basics of framework to develop secure web applications
33	T.Y. B.Sc. (CS)	Sixth	CS - 3610 Software Testing Tools	• To understand various software testing methods and strategies. • To understand a variety of software metrics and identify defects and managing those defects for improvement in quality for given software. • To design test cases and test plans, review reports of testing for qualitative software. • To understand latest testing tools used in the software industries.
34	T.Y. B.Sc. (CS)	Sixth	CS - 3611 Project	• Project Planning, design, coding • Test Plan, Black Box Testing or Data Validation Test Cases. • White Box Testing or Functional Validation Test cases and results

IQAC **PRINCIPAL**