Rayat Shikshan Sanstha's
Mahatma Phule Mahavidyalaya, Pimpri, Pune-17
Program Outcomes (POs), Program Specific Outcomes(PSOs) and Course Outcomes(COs)

Program Outcomes (B.A.)

PO.1: Basic knowledge: Apply the basic knowledge of languages and social sciences.

PO.2: Problem Analysis: Study the literature, understand terms and particular concepts. Formulate and analyze the complex ideas in the social sciences.

PO.3: Manners and Etiquettes: Acquire knowledge such as code of conduct of society, manners, cultural, political, economical, historical and geographical situations.

PO.4: Critical Thinking: Identify the assumptions, check out the degree to which assumptions are accurate and look validly towards the current perspectives.

PO.5: Effective Communication: Apply the basic knowledge of listening, speaking, read and writing clearly Marathi, Hindi and English languages which leads to effective communication and being able to comprehend and write effective reports and design documents for making effective presentation and exchange clear information.

PO.6: Use of Modern Tools: Acquire the knowledge of I.C.T. in communications.

PO.7: Ethics and Values: Apply the ethical principles and understand the responsibilities of the societies. Implement the life values through literature.

PO.8: Life-long Learning: Understand the nature of any discipline as a continuous process of development and welfare of the human being.

PO.9: Research Awareness: Develop Research awareness among students through experiential learning.

PO.10: Global Competency: Acquire global competency by inculcating the knowledge of present social, political, economical and linguistical scenario.

PO.11.Environmental Awareness: Study the environmental problems and develop capacity to solve environmental problems.

Department of English

Program specific outcomes

Name of the Department	Program specific outcome
English	• **PSO1:** Ability for clear expression for both oral and written. • **PSO2:** Attend the potential knowledge of English language, their trends and terms. • **PSO3:** Understand the code of conduct cultural issues. • **PSO4:** Understand the various literary genres and study of literature such as Indian, British literature and language etc.

Course outcomes

Name of the Department	Class	Course Name	Course code	Course Outcome
English	**F.Y.B.Com Sem.1**	**Compulsory English**	**111**	CO1 Get familiarized with excellent pieces of prose and poetry in English and will be realized the beauty and communicative power of English CO2 Understand native cultural experiences and situations and develop humane values and social awareness CO3 Acquire overall linguistic competence and communicative skills

English	**F.Y.B.Com Sem.2**	**Compulsory English**	**121**	**CO1:** Students realize the beauty and communicative power of English. CO2: Students understand the importance and utility of the English language. CO3:Students can use the language effectively and feel confident in and outside the world CO4: Their employability enhances and English becomes the medium of their livelihood and personality.
English	**F.Y. B.A Sem.1**	Compulsory English	**11011**	CO1 Students realize the beauty and communicative power of English. CO2 Students understand the importance and utility of the English language .
English	**F.Y. B.A Sem.2**	**Compulsory English**	**11012**	CO1 Students can use the language effectively and feel confident in and outside the world CO2 Their employability enhances and English becomes the medium of their livelihood and personality.
English	**FYBA Sem.1**	**Optional English**	**11331**	CO1 Students realize various forms of literature and language. CO2 They understand the literary merit, beauty and creative use of language.
English	**FYBA Sem.2**	**Optional English**	**11332**	CO1 Students become aware of the technical aspects and their practical usage CO2 Students develop the art of reading and u8nderstanding of literature and language.
English	**SY BA Sem.1**	**Compulsory Engli**	**2017**	CO1 The Student becomes the self- learned CO2 The Students becomes familiar with various forms of literature. CO3 The Students become independent readers

		sh		CO4 Students become familiar with human values and social awareness
				CO5 The Student becomes the self- learned
English	**S.Y. B.A Sem.2**	**Optional English G-II**	**2337**	CO1 Students will learn artistic and innovative use of language through prescribed literary text
				CO2 Students will be acquainted with basic concepts and issues in linguistics
				CO3 They will learn sub-disciplines of linguistics.
				CO4 Students will be able to response emotionally to the literary text and will be acquired literary sensibility.
				CO5 Students will learn artistic and innovative use of language through prescribed literary text
English	**S.Y. B.A Sem.1**	**Optional English S-I**	**2338**	CO1 Students understand the terminology in Drama and Criticism.
				CO2 Students understand few sample masterpieces of English Drama from different parts of the world.
				CO3 They develop their interest and analyze drama independently.
				CO4 Students become aware in aesthetics of Drama.
				CO5 Students understand the terminology in Drama and Criticism.
English	**S.Y. B.A Sem.2**	**Optional English Paper - Appreciating**	**2339**	CO1 The students become familiar with the terminology in poetry
				CO2 The students become studied some examples of poetry.
				CO3 The Students become aware in the aesthetics of poetry and read independently.

		Poetry		
English	**T.Y. B.A Sem.1**	**Compulsory English Paper - Literary Pinnacles**	**3017**	CO1 Students acquire the proficiency in English language CO2 The wider exposure of the English language enables them to acquire various skills in effective communication and it enhances their abilities of self-learning. CO3 The students acquire the skill of reading different types of texts in English.
English	**T.Y. B.A Sem.2**	**Optional English G-III**	**3337**	CO`1 Students will come to know the major figures of Indian literature in English CO2 Students will acquire sense of appreciation of literary text. CO3 Students will develop human values and concerns through literary text CO4 Literary and linguistic competence of students will be enhanced
English	**T.Y. B.A Sem.3**	**(English S-III) Paper - Appreciating**	**3338**	CO1 Students acquire the proficiency in English language The wider exposure of the English language enables them to acquire various skills in effective communication and it enhances their abilities of self-learning. CO2 The students acquire the skill of reading different types of texts in English.

		Novel		
English	**T.Y. B.A Sem.4**	**Special English S-IV**	**3339**	CO1 Students acquire the knowledge of basics of literary criticism.
				CO2 They becomes aware of the nature and historical development of criticism.
				CO3 They familiarize with the significant critical approaches and terms.
English	**S.Y. B.sc**	**Optional English**		CO1 Students become aware about the use of English language in literary texts and scientific writing. CO2 Students revise the background knowledge and concepts in grammar in order to improve the word power on which their effective use of English language is based. CO3 They understands the minute technical aspects which are necessary to make language use appropriate according to various real life situations. CO4 Students get exposure to make effective use of language in both oral and written forms.

DEPARTMENT OF HINDI (2020-21)

Name of the Program	Program Specific Outcomes (PSOs)	
B.A. (Hindi)	PSO 1	सृजनात्मकता एवं संभाषण कला
	PSO 2	साहित्य की विविध विधाओं का स्वरूपात्मक ज्ञान
	PSO 3	जीवनमूल्य
	PSO 4	हिंदी विज्ञापन लेखन कौशल
	PSO 5	राजभाषा हिंदी के संवैधानिक स्वरुप का आकलन
	PSO 6	रिपोर्ट लेखन एवं समाचार लेखन कौशल
	PSO7	अनुवाद कौशल
	PSO 8	पारिभाषिक शब्दावली तथा संक्षिप्तियाँ
	PSO 9	हिंदी साहित्य के इतिहास से परिचय
	PSO 10	अनुसंधान प्रविधि एवं प्रक्रिया का ज्ञान
	PSO 11	प्रयोजनमूलक हिंदी से परिचय
	PSO 12	साहित्यशास्त्र एवं भाषाविज्ञान से परिचय
	PSO 13	कार्यालयीन तथा व्यावहारिक पत्राचार कौशल
	PSO 14	प्रतिनिधि साहित्यकारों का परिचय

Course Outcomes (COs)-U.G.

Department	Class	Course Code	Course Name	Course Outcome
Department of Hindi	F.Y.B.A (प्रथम अयन)	11091B	वैकल्पिक हिंदी प्रश्नपत्र - 1(A)	CO1. हिंदी साहित्य के प्रति रूझान । CO2. हिंदी कहानी एवं काव्य साहित्य से परिचय । CO3. जीवनमूल्य बोध । CO4. प्रयोजनमूलक हिंदी से परिचय । CO5. विचार क्षमता तथा लेखन क्षमता का विकास ।

				CO6. सृजनात्मकता (Creativity) का विकास । CO7.संवाद कौशल एवं सूत्रसंचालन का परिचय । CO8.इंटरनेट तथा हिंदी सॉफ्टवेयरों की सामान्य जानकारी ।
	F.Y.B.A (द्वितीय अयन)	**11092B**	**वैकल्पिक हिंदी प्रश्नपत्र - 1(B)**	CO1.हिंदी काव्य तथा गद्य की विविध साहित्यिक विधाओं का सामान्य परिचय । CO 2.स्ववृत्त लेखन कौशल । CO 3.निबंध लेखन कौशल । CO 4.विज्ञापन लेखन कौशल । CO 5.वाक्यशुद्धीकरण । CO 6.राजभाषा हिंदी का प्रचार-प्रसार ।
	F.Y.B.Com (प्रथम अयन) .	**117C**	**वैकल्पिक हिंदी प्रश्नपत्र - 1(A)**	CO1.हिंदी कहानी एवं काव्य साहित्य से परिचय । CO2.हिंदी संवाद कौशल का विकास । CO3.हिंदी कंप्यूटिंग का सामान्य परिचय । CO4.इंटरनेट तथा हिंदी सॉफ्टवेयरों की सामान्य जानकारी । CO5.अंक तथा गणितीय चिह्नों का देवनागरी में लेखन ।
	F.Y.B.Com (द्वितीय अयन)	**127C**	**वैकल्पिक हिंदी प्रश्नपत्र - 1(B)**	CO1.हिंदी कहानी एवं काव्य साहित्य से परिचय । CO2.हिंदी संप्रेषण कौशल का विकास । CO3.अनुवाद कौशल । CO4.पारिभाषिक शब्दावली (कार्यालयीन) :सामान्य परिचय ।
	S.Y.B.A (तृतीय अयन)	**23093**	**CC-1C (G-2) आधुनिक काव्य,कहानी तथा**	CO1.काव्य साहित्य से परिचय । CO2.कहानी साहित्य से परिचय । CO3.हिंदी कारक-व्यवस्था को समझना । CO4.शब्द युग्म का अर्थ एवं प्रत्यक्ष वाक्य में

			व्यावहारिक हिंदी	प्रयोग। CO5.संक्षेपण लेखन का प्रत्यक्ष बोध । CO6.सर्जनात्मकता का विकास।
		23091	**DSE-1A (S-1) काव्यशास्त्र (सामान्य)**	CO 1.भारतीय काव्यशास्त्र का परिचय । CO 2. काव्य परिभाषा, तत्व आदि का बोध । CO 3. काव्य के तत्व, शब्द-शक्तियों का परिचय । CO 4. रस का स्वरूप समझाना । CO 5. भारतीय काव्यशास्त्र के प्रति रुझान तथा आलोचनात्मक दृष्टि का विकास ।
		23092	**DSE-2A (S-2) मध्ययुगीन काव्य तथा उपन्यास साहित्य**	CO 1.मध्ययुगीन हिंदी काव्य का सामान्य परिचय। CO 2.कबीर के साहित्य का परिचय । CO 3.मीराँबाई के साहित्य को समझना । CO 4.हिंदी उपन्यास की अवधारणा समझना । CO 5.उपन्यास समीक्षा कौशल का विकास । CO 6.साहित्यिक रचनाओं में प्रतिबिंबित जीवनमूल्य बोध ।
		23096	**SEC-2A अनुवाद: स्वरुप एवं व्यवहार**	CO 1.अनुवाद कौशल । CO 2. अनुवाद का स्वरूप बोध । CO 3. अनुवाद क्षेत्र से परिचय । CO 4. हिंदी से मराठी में अनुवाद :अनुप्रयोग । CO 5. अंग्रेजी से हिंदी, मराठी में अनुवाद कौशल का विकास ।
		23012	**MIL-1 हिंदी भाषा शिक्षण**	CO 1.हिंदी भाषा श्रवण कौशल का विकास । CO 2.हिंदी भाषा संवाद कौशल का विकास । CO 3. हिंदी भाषा संवाद कौशल का विकास । CO 4. हिंदी भाषा संवाद कौशल का विकास । CO 5.हिंदी भाषा व्यवस्था एवं व्यवहार का बोध । CO 6.लघुकथा सृजन कौशल ।

	S.Y.B.A (चतुर्थ अयन)	**24093**	**CC-1D (G-2) आधुनिक हिंदी व्यंग्य साहित्य तथा व्यावहारिक हिंदी**	CO 1. छात्रों को व्यंग्य पाठ से परिचित कराना। CO 2. छात्रों को कहानी व्यंग्य पाठ का बोध कराना। CO 3. साक्षात्कार कला से अवगत कराना। CO 4. भाषा का मोबाइल तंत्र समझाना। CO 5. पल्लवन कला से अवगत करना।
		24091	**DSE-1B (S-1) साहित्य के भेद**	CO 1. छात्रों को साहित्य के भेद से अवगत कराना। CO 2. छात्रों को पदय भेद से अवगत कराना। CO 3. महाकाव्य, खंडकाव्य और मुक्तक काव्य का परिचय कराना। CO 4. नाटक का स्वरूप समझाना। CO 5. छात्रों में नाट्य अभिनय की रुचि विकसित करना।
		24092	**DSE-2B (S-2) मध्ययुगीन काव्य तथा नाटक साहित्य**	CO 1.रहीम के काव्य का परिचय । CO 2.बिहारी की काव्य-अभिव्यंजना की समझ । CO 3.आधुनिक हिंदी नाटक एवं रंगमंच की जानकारी । CO 4.नाट्यालोचन एवं अभिनय कौशल का विकास ।
		24096	**SEC-2B माध्यम लेखन**	CO 1.माध्यम लेखन का सामान्य परिचय । CO 2.सृजनात्मक लेखन कौशल । CO 3.फीचर लेखन कौशल । CO 4.दृश्य-श्रव्य मधामों की भाषा से परिचय ।
		24012	**MIL-2 हिंदी भाषा शिक्षण**	CO 1. वाक्य के भेदों की जानकारी । CO 2. विशेष प्रकार के वाक्यों से परिचय। CO 3. हिंदी भाषा श्रवण कौशल । CO 4. हिंदी भाषा संवाद कौशल। CO 5. हिंदी भाषा पठन कौशल ।

				CO 6.हिंदी भाषा लेखन कौशल का विकास । CO 7. हिंदी भाषा-विधि तथा भाषा-व्यवहार। CO 8. हिंदी काव्य-गीत सृजन कौशल।
6.	**T.Y.B.A**	**3094**	**आत्मकथांश काव्य – नाटक तथा लेखन (G-3)**	CO 1. हिंदी आत्मकथा तथा काव्य – नाटक विधाओं का सामान्य परिचय 1 CO 2. साक्षात्कार कौशल (Interview skills) CO 3. सरकारी पत्राचार लेखन कौशल 1 CO 4. पारिभाषिक शब्दावली तथा संक्षिप्तियाँ 1 CO 5. समाचार लेखन कौशल 1 CO 6. अनुवाद कौशल(Translation Skills) CO 7. संवाद कौशल 1 CO 8.कार्यक्रम संयोजन कौशल(Event Management Skills)
7.	**T.Y.B.A**	**3095**	**हिंदीसाहित्य काइतिहास S-3**	CO 1. हिंदी साहित्य के इतिहास की लेखन परंपरा से परिचय 1 CO 2. कालविभाजन, नामकरण एवं युगीन पृष्ठभूमि से परिचय। CO 3. हिंदी साहित्य के प्रतिनिधि रचनाकार एवं रचनाओं से परिचय 1 CO 4. हिंदी साहित्य का विकासक्रम 1 CO 5. साहित्य और युग जीवन का संबंध 1 CO 6. आधुनिक युग के साहित्य की प्रवृत्तियों से परिचय 1
8.	**T.Y.B.A.**	**3096**	**काव्यशास्त्र S-4**	CO 1.साहित्य की परिभाषाओं से परिचय 1 CO 2.काव्यहेतु,काव्यप्रयोजनों का ज्ञान 1 CO 3.काव्य के तत्व,काव्य के भेद तथा शब्दशक्ति से परिचय 1 CO 4.छंद एवं अलंकारों का सोदाहरण परिचय 1

				CO 5.साहित्य की विविध विधाओं का तत्वगत अध्ययन 1 CO 6.रस के स्वरुप,अंग एवं भेदों का विवेचन 1 CO 7.आलोचना दृष्टि का विकास 1

Program Specific Outcomes PG (PSOs)

Name of the Program	Program Specific Outcomes (PSOs)	
M.A (Hindi)	PSO 1	मध्ययुगीन काव्य की समीक्षा कौशल
	PSO 2	कथा एवं कथेतर हिंदी साहित्य का परिचय
	PSO 3	भारतीय एवं पाश्चात्य काव्यशास्त्र के प्रमुख सिद्धांतों का परिचय
	PSO 4	हिंदी पत्रकारिता कौशल
	PSO 5	तुलनात्मक अध्ययन क्षमता
	PSO 6	सृजनात्मक लेखन एवं आलोचना दृष्टि
	PSO 7	हिंदी पत्रकारिता के क्षेत्र का परिचय
	PSO 8	आधुनिक काव्य का संवेदना एवं शिल्पगत अनुशीलन
	PSO 9	हिंदी साहित्येतिहास लेखन बोध
	PSO 10	भाषा विज्ञान के सैद्धांतिक एवं अनुप्रयोगात्मक पक्ष का बोध
	PSO 11	अनुसंधानपरक दृष्टि का विकास
	PSO 12	संचार माध्यमों का परिचय
	PSO 13	हिंदी भाषा की संरचना का ज्ञान
	PSO 14	भारतीय साहित्य का परिचय

Course Outcomes (COs)-P.G.

Sr. No.	Class	Couse Code	Course Name	Course Outcome
1.	M.A. I (प्रथम अयन)	10501	**पाठ्यचर्या -1 मध्ययुगीन काव्य**	CO 1. हिंदी की मध्ययुगीन काव्यप्रवृत्तियों का परिचय 1 CO 2. मध्ययुगीन काव्य के प्रतिनिधि कवियों का परिचय 1 CO 3. मध्ययुगीन काव्य की प्रासंगिकता(Relevance) 1 CO 4. मध्ययुगीन काव्य की भाषाशैली का परिचय 1 CO 5.मध्ययुगीन काव्य की समीक्षा कौशल का विकास 1 CO 6. मध्ययुगीन कवियों के दोहों और पदों की प्रस्तुति 1 CO 7.जीवनमूल्य संप्रेषण 1
		10502	**पाठ्यचर्या -2 कथासाहित्य**	CO 1. गद्य की उपन्यास और कहानी विधा का तात्विक परिचय 1 CO 2. उपन्यास और कहानी विधा की समीक्षा कौशल का विकास 1 CO 3. रचना काआस्वादन लेने की क्षमता विकसित करना 1 CO 4. सृजनात्मक क्षमता का विकास 1 CO 5. तुलनात्मक अध्ययन क्षमता में वृद्धि 1 CO 6.आलोचनात्मक दृष्टि का विकास 1 CO 7.जीवनमूल्य संप्रेषण 1
		10503	**पाठ्यचर्या -3 भारतीय काव्यशास्त्र**	CO 1.काव्य और काव्यशास्त्र का विशेष परिचय 1 CO 2.भारतीय काव्यशास्त्र के विकासक्रम का परिचय 1 CO 3.भारतीय काव्यशास्त्र के प्रमुख संप्रदायों /सिद्धांतों का परिचय 1 CO 4.रचना वैशिष्ट्य और मूल्यबोध को परखने की क्षमता का विकास 1 CO 5.आलोचनात्मक कौशल का विकास 1
		10504	**पाठ्यचर्या -4**	CO 1.हिंदी पत्रकारिता के क्षेत्र का परिचय 1

			हिंदी पत्रकारिता	CO 2.पत्रकारिता के क्षेत्र में रोजगार के अवसरों की जानकारी 1 CO 3.पत्रकारिता कौशल का विकास 1 CO 4.पत्रकारिता की भाषा का ज्ञान 1 CO 5.हिंदी भाषा और साहित्य के विकास में पत्र-पत्रिकओं का योगदान।
2	**M.A. I (द्वतीय अयन)**	**20501**	**पाठ्यचर्या - 5 कथेतर गद्य साहित्य**	CO 1.व्यंग्य ,निबंध,रेखाचित्र और संस्मरण कथेतर साहित्य का परिचय 1 CO 2.कथेतर हिंदी साहित्य का तत्वगत अध्ययन 1 CO 3.कथेतर हिंदी साहित्य की आलोचनात्मक दृष्टि का विकास 1 CO 4.कथेतर हिंदी साहित्य का भाषिक अध्ययन 1 CO 5.मौलिक हिंदी लेखन कौशल की प्राप्ति 1 CO 6.कथेतर हिंदी साहित्य की प्रासंगिकता 1
		20502	**पाठ्यचर्या - 6 शोध प्रविधि**	CO1. शोध प्राविधि का परिचय 1 CO2. शोध दृष्टि का विकास 1 CO3. नए शोध-प्रवाहों से परिचय 1 CO 4.शोध प्रक्रिया के विविध आयामों का परिचय 1 CO 5.शोध और आलोचना के अंतर को समझना 1 CO 6.शोध प्रबंध लेखन कौशल 1 CO7. संदर्भ ग्रंथ सूची की पद्धतियों की जानकारी 1 CO 8.शोध प्रबंध टंकण में यूनिकोड का महत्त्व 1
		20503	**पाठ्यचर्या - 7 पाश्चात्य साहित्यशास्त्र**	CO 1. पाश्चात्य साहित्यशास्त्र के विकासक्रम का परिचय। CO 2. पाश्चात्य साहित्यशास्त्र के प्रमुख सिद्धांतों का परिचय 1 CO 3. साहित्यशास्त्रीय समीक्षा कौशल। CO 4. पाश्चात्य साहित्यशास्त्र के सिद्धांतों में साम्य-वैषम्य। CO 5.सृजन ,आस्वादन और आलोचना दृष्टि का विकास 1 CO 6.नई आलोचना प्रणाली कौशल (new criticism skills)

		20505	**पाठ्यचर्या - 8 हिंदी उपन्यास साहित्य**	CO 1.हिंदी उपन्यास साहित्य के विकासक्रम का परिचय1 CO 2.पठित उपन्यासों का संवेदना एवं शिल्पगत अध्ययन 1 CO 3.उपन्यास साहित्य के आस्वादन की क्षमता का विकास 1 CO 4.उपन्यास साहित्य में प्रतिबिंबित जीवनमूल्यों का परिचय 1 CO 5.उपन्यास मूल्यांकन कौशल 1
3	**M.A.II (तृतीय अयन)**	**30501**	**पाठ्यचर्या-9 आधुनिक काव्य (आदर्शवादी, छायावादी तथा अन्यकाव्य)**	CO 1.आधुनिक काव्य की प्रमुख प्रवृत्तियों से परिचय । CO 2.आधुनिक काव्य समीक्षा कौशल । CO 3.आधुनिक काव्य का संवेदना एवं शिल्पगत अनुशीलन । CO 4.काव्य-सृजन कला का विकास1 CO 5.महाकाव्य एवं मुक्तक की अवधारणा की समझ ।
		30502	**पाठ्यचर्या-10 भाषाविज्ञान**	CO 1.भाषा विज्ञान के स्वरुप का परिचय । CO 2.भाषा विज्ञान के अध्ययन की दिशाओं का परिचय । CO 3. भाषा विज्ञान के अनुप्रयोगात्मक पक्ष का बोध। CO 4.साहित्य अध्ययन में भाषा विज्ञान की उपयोगिता की समझ । CO 5.स्वनिम,रूपिम एवं वाक्य विज्ञान का अनुशीलन।
		30503	**पाठ्यचर्या-11 हिंदी साहित्य का इतिहास**	CO 1. हिंदी साहित्येतिहास लेखन का परिचय । CO 2. हिंदी साहित्येतिहास के कालविभाजन तथा नामकरण का परिचय 1 CO 3. आदिकालीन, भक्तिकालीन,रीतिकालीन प्रमुख साहित्यिक प्रवृत्तियों,रचनाकारों और रचनाओं से परिचय।

		30505	**पाठ्यचर्या-12 वैकल्पिक – (ख) संचार माध्यम :सिद्धांत और स्वरूप**	CO 1. संचार माध्यम और संप्रेषण अवधारणाओं का परिचय। CO 2. संचार माध्यम की अवधारणा और स्वरूप का परिचय। CO 3. संचार माध्यम की बहुआयामी भूमिका का परिचय । CO 4. संचार माध्यम कौशल विकसित करना।
4	**M.A.II (चतुर्थ अयन)**	**40501**	**पाठ्यचर्या-13 आधुनिक कविता**	CO 1.आधुनिक कविता के संवेदना एवं शिल्प पक्ष का परिचय 1 CO 2.आधुनिक काव्य की समीक्षा दृष्टि का विकास । CO 3.सृजनात्मक कौशल । CO 4.आधुनिक कविता की विविध विधाओं से परिचय1 CO 5.आधुनिक कविता के विविध विमर्शों का बोध1
		40502	**पाठ्यचर्या-14 हिंदी भाषा का विकास**	CO 1.हिंदी भाषा की ऐतिहासिक पृष्ठभूमि का परिचय। CO 2.आधुनिक आर्यभाषाओं का परिचय । CO 3.हिंदी की स्वनिम व्यवस्था का अनुशीलन । CO 4.हिंदी की रूप रचना का बोध । CO 5.हिंदी भाषा के संरचनात्मक कौशल का विकास।
		40503	**पाठ्यचर्या-15 हिंदी साहित्य का इतिहास (आधुनिक काल)**	CO 1. हिंदी गद्य के उद्भव और विकास से छात्रों को अवगत कराना। CO 2. द्विवेदी युग, छायावाद, प्रगतिवाद, प्रयोगवाद और नई कविता के प्रमुख साहित्यिक प्रवृत्तियों, रचनाकारों और रचनाओं से परिचय। CO 3. ऐतिहासिक दृष्टि का विकास ।
		40505	**पाठ्यचर्या-16 वैकल्पिक – (ख) भारतीय साहित्य**	CO 1. भारतीय साहित्य का परिचय । CO 2. भारतीय साहित्य की अवधारणा 1 CO 3. भारतीय साहित्य के अध्ययन की समस्याएँ सुलझाना । CO 4. भारतीयता का समाजशास्त्र समझना ।

Course Outcomes (COs): Short Term Courses

Name of the Department	Class	Course Name	Course Outcome
Hindi	**F.Y.B.A.**	**A Certificate Course in Fashion Designing**	CO 1. To create awareness about clothing culture. CO2. To understand the suitability of different fabrics and their end use. CO 3.To understand the basic concepts of design and fashion. CO4 To know basics of garment construction. CO5.To learn the basic techniques of sketching and drafting. CO6 .Identify the types of sleeves and collars.
	S.Y.B.A.	**A Diploma Course in Fashion Designing**	CO1.To understand the principle of colour theory and their application in clothing and accessories. CO2.To know the structural and decorative designs. CO 3.To develop a skill for drawing mechanical croquis. CO 4.To develop a skill to create contemporary styles of embroideries for fashion garments. CO5 To groom the students to raise their self confidence and creativity. CO6.To acquaint students with skills and techniques in fashion designing.
	S.Y.B.A.	**A Certificate Course in Journalism**	CO 1.To introduce the basic concepts in Journalism. CO 2.To acquire the knowledge related to media and its impact. CO3. To acquaint students with important aspects of the process of Journalism. CO4.To acquire the skill of News Writing. CO5. To inculcate the knowledge of laws and ethics of Journalism. CO6. Students will be able to have the understanding of impactful media writing.
	T.Y.B.A.	**An Advanced Diploma Course in Fashion Designing**	CO1.To develop the ability to create style in the garment through flat pattern making. CO2.To develop skills in western garments. CO3.To acquire the skill of adding accessories. CO4.To learn techniques of product development and promotion. CO5.To learn the design process and presentation skill of individual work. CO6.Students will be able to organize fashion show.

	T.Y.B.A.	**A Certificate Course in DTP and Book Publishing**	CO 1. The students will be able to effectively & efficiently produce formatted text and graphics.. CO 2.To learn the use of computer for printing and publication. CO 3. To acquire the knowledge of basic computer concept regarding DTP. CO 4.To understanding data entry and data processing. CO 5.To acquaint students with the art, technique, legal procedure and ethics of book publishing. CO 6.To learn and practice MS office.
	M.A. I	**An Advanced Course in Spoken English**	CO 1. Students are able to use thesaurus, encyclopedia, dictionary to improve their vocabulary. CO2. They are able to professionally interact with effective conversations. CO3. They became more confident while discussing in English language. CO4 .To improve the advanced communication skills. CO5. To demonstrate an increased ability to respond appropriately to the formality level of a social interaction. CO6. To encourage students to find more resources to develop their communication skills.
	M.A. II	**A Certificate Course in Soft Skills Development**	CO1.To become self-confident individuals by mastering inter-personal skills, team management skills, and leadership skills. CO2.To develop all-round personalities with a mature outlook to function effectively in different circumstances. CO 3.To develop broad career plans, evaluate the employment market, identify the organizations to get good placement, match the job requirements and skill sets. CO4.To take part effectively in various selection procedures adopted by the recruiters. CO5.To increase learner's unique soft skills so as to develop attributes that enhance an individual's interactions, earning power and job performance. CO6.To inculcate potential skills in the learners to prepare them to deal with the external world in a collaborative manner, communicate effectively, take initiative, solve problems, and demonstrate a positive work ethic so as to hold a good impression and positive impact.

DEPARTMENT OF MARATHI (2020-21)

Course Outcome (Cos)

Name of the Department	Class	Course Name	Course code	Course Outcome
Marathi	**F.Y.B.A.**	**1027**	**मराठी जनरल समकालीन मराठी कथा** **एकांकिका : "विठ्ठल तो आला आला " व "हंडाभर चांदण्या"**	CO.1 मराठी भाषा साहित्याविषयी विद्यार्थ्यांच्या मनात आवड व रुची निर्माण करणे . CO.2 मराठी कथा ,कविता या वाड्.मय प्रकारचे स्वरूप व परंपरेचे आकलन करून देणे . CO.3 श्रवण ,वाचन ,लेखन ,भाषण , संभाषण या भाषिक कौशल्याच्या क्षमतेचा विकास घडवून आणणे. CO.4 प्रास्ताविक ,मनोगत ,भाषण , आभार व सूत्रसंचालक या कार्यक्रम संयोजन कौशल्य विकसित करणे . CO.5 वृत्तपत्र ,आकाशवाणी व दूरदर्शन या प्रसार माध्यमांसाठी बातमीलेखन ,निवेदन ,मुलाखत व जाहिरात लेखन यांचा परिचय करून देणे . CO.6 मातृभाषा व राष्ट्रप्रेम यांच्याविषयी जाणीव जागृती घडवून आणणे .
.2	**F.Y.B.COM**	**1521**	**यशोगाथा व व्यावहारिक व उपयोजित मराठी मराठी जनरल**	CO.1 वाणिज्य विषयाच्या विद्यार्थ्यांना मराठी व्यवहार क्षेत्राची माहिती देणे. CO.2 विविध क्षेत्रातील भाषा व्यवहाराचे स्वरूप व गरज समजावून देणे. CO.3 व्यवहार क्षेत्रातील मराठी भाषेचे स्थान स्पष्ट करणे त्यातील प्रत्यक्ष

				वापराचा अभ्यास करणे. CO.4 विविध क्षेत्रातील मराठीचा अभ्यास करण्यासाठी प्रसारमाध्यमांचे स्वरूप व त्यातील भाषण व्यवहार समजावून देणे. CO.5 प्रसारमाध्यमांसाठी विविध लेखन प्रकाशांचा अभ्यास व प्रत्यक्ष लेखन करणे.
.3	**S.Y.B.Sc**	**83111** **83112**	**विज्ञानसृष्टी / व्यावहारिक व उपयोजित मराठी मराठी जनरल**	CO.1 साहित्यासंबंधी विशेषतः मराठी साहित्यासंबंधी रुची निर्माण करणे. CO.2 साहित्याभ्यातून जीवनविषयक समज विकसित करणे. CO.3 जागतिकीकरणात विविध क्षेत्रांना सामोरे जाण्यासाठी भाषिक क्षमतांचा विकास करणे . CO.4 डॉ .नरेंद्र दाभोळकर यांचा वैज्ञानिक दृष्टिकोन विद्यार्थ्यांच्यामध्ये रुजविणे , नवनवीन शोध ,संकल्पना , विज्ञानकथांमधून आकलन करून देणे. CO.5 आकाशवाणीसाठी भाषण संहिता दूरदर्शनसाठी मुलाखत लेखन , निबंधलेखन ,सारांश लेखन , पारिभाषिक संज्ञा यांचा परिचय करून देणे. CO.6 व्यावहारिक व उपयोजित मराठीचे आजच्या तंत्रज्ञानाच्या काळातील महत्व त्याद्वारे विद्यार्थ्यांमध्ये भाषिक क्षमतांचा दर्जा वाढविणे.

.4	**S.Y.B.A.**	**2025**	**मराठी जनरल-२ जीवनवेध व माझी जडणघडण**	CO.1 चरित्र ,आत्मचरित्र या वाड्.मय प्रकाराचा व परंपरेचा परिचय करून देणे. CO.2 सावित्रीबाई फुले ,महर्षी कर्वे , बडोदा नरेश ,शहाजीराजे गायकवाड ,प्रबोधनकार ठाकरे , डॉ .बाबासाहेब आंबेडकर व कर्मवीर भाऊराव पाटील इत्यादी समाजसुधारकांच्या जीवन चरित्रांच्या माध्यमातून विद्यार्थ्यांना सामाजिक परिवर्तनाची ओळख करून देणे. CO.3 माजी राष्ट्रपती प्रतिभाताई पाटील ,डॉ .यु. म . पठाण,रा .ग .जाधव ,गंगाधर पानतावणे ,तारा भवाळकर , डॉ .नागनाथ कोत्तापल्ले , इत्यादी साहित्यिकांचे जीवनानुभवाचा परिचय करून देणे व विद्यार्थ्यांमध्ये चांगुलपणाच्या भावनेचा विकास घडवून आणणे. CO.4 मराठी भाषेचे व्याकरण व व्यावहारिक व उपयोजित मराठीसाठी पत्रलेखन हे कौशल्य विकास.
.5	**S.Y.B.A.**	**2025**	**आधुनिक मराठी वाड्.मय स्पेशल-१)नाटक (नटसम्राट व फकिरा)कादंबरी(**	CO.1 २०२५ मराठी नाट्यपरंपरेचा नाट्य वाड्.मय प्रकार ,स्वरूप व मराठी नाट्यपरंपरेचा परिचय करून देणे. CO.2 नाट्य साहित्यकृतीच्या माध्यमातून विद्यार्थ्यांमध्ये सामाजिक जाणीव जागृती निर्माण करणे. CO.3 कादंबरी वाड्.मय प्रकार व मराठी कादंबरी परंपरेचा परिचय करून देणे. CO.4 विद्यार्थ्यांमध्ये साहित्य रसास्वाद , क्षमता निर्माण करणे.

.6	**S.Y.B.A.**	**2026**	**अर्वाचीत मराठी साहित्य स्पेशल-२**	CO.1 सन १८० ते १९६० पर्यंतचा परिचय करून देणे. CO.2 अर्वाचीन मराठी साहित्यांचे विविध कालखंडाचे स्वरूप व कालखंडाचे नामकरण याविषयीची पार्श्वभूमी / परिचय करून देणे. CO.3 अर्वाचीत मराठी साहित्य कालखंडातील कथा ,कादंबरी , नाटक ,काव्य ,चारित्र , आत्मचरित्र ,इत्यादी साहित्यप्रकारांचा स्थूल परिचय करून देणे. CO.4 आधुनिक मराठी साहित्य निर्माण करणाऱ्या साहित्यिकांचा परिचय व त्यांची वाङ्.मयीन कामगिरीची ओळख करून देणे. CO.5 आधुनिक मराठी साहित्य निर्मितीच्या प्रेरणा व प्रवृत्तींचा परिचय करून देणे. CO.6 साहित्यांच्या माध्यमातून विद्यार्थ्यांमध्ये सामाजिक जाणीव जागृती निर्माण करणे.
.7	**T.Y.B.A.**	**3024**	**मराठी जनरल-३**	CO.1 प्रवासवर्णन या वाङ्.मय प्रकाराचे स्वरूप व मराठी प्रवास वर्णन लेखन परंपरेचा परिचय करून देणे. CO.2 वैचारिक व ललित निबंध लेखन परंपरेचा परिचय करून देणे ,हा निबंध या वाङ्.मय प्रकारातून विद्यार्थ्यांमध्ये सामाजिक जाणीव जागृती करणे. CO.3 ग्रंथ परीक्षणाच्या माध्यमातून साहित्याचा आस्वाद घेणे ,साहित्याच्या चिकित्सक समीक्षांची दृष्टी विकसित करणे. CO.4 मराठी भाषा व साहित्यांचा प्रचार व प्रसार करणे.

.8	**T.Y.B.A.**	**3025**	**साहित्यविचार स्पेशल-३**	CO.1 साहित्य स्वरूप ,वैशिष्ट्ये , साहित्यातील कलात्मकता यांचे आकलन समृद्ध करणे. CO.2 साहित्य निर्मितीची प्रयोजने व काव्य कारणांविषयी परिचय करून देणे. CO.3 साहित्यांच्या भाषेचे गुणविशेष , प्रतिमा ,प्रतिक व मिथक यांचा परिचय. CO.4 साहित्यलेखन शैली आकलन समृद्ध करणे. CO.5 साहित्य व समाज यांचे परस्पर संबंध व परस्परांवर होणारे परिणाम यांची जाणीव करून देणे. CO.6 विविध साहित्यप्रकारांच्या संकल्पनांची ओळख करून देणे. CO.7 साहित्य अभिरुची संकल्पनेचा विकास घडवून आणणे. CO.8 साहित्य व कला यांच्याविषयी विद्यार्थ्यांच्या मनात रुची निर्माण करणे.
.9	**T.Y.B.A.**	**3026**	**भाषा विज्ञान वर्णनात्मक व इतिहासिक स्पेशल-४**	CO.1 विद्यार्थ्यांना मराठी भाषा विज्ञानाचा स्थूल परिचय करून देणे. CO.2 भाषेचा शास्त्रीय दृष्टीने अभ्यास करण्याचा दृष्टिकोन विकसित करणे. CO.3 विद्यार्थ्यांना मराठी भाषेचे स्वरूप व कार्य सांगून भाषेच्या माध्यमातून कसा एकसंघ राहू शकतो ,हा विचार त्यांचेवरबिंबविणे. CO.4 मराठी भाषेतील शब्द निर्मितीची

				प्रक्रिया वागिंद्रिंय रचना ,स्वनिय व्यवस्था ,रुपिम व्यवस्था इत्यादीच्या साहाय्याने विद्यार्थ्यांना परिचय करून देणे. CO.5 विद्यार्थ्यांना भाषाभ्यासाची ऐतिहासिक पद्धतीचा परिचय करून देणे व त्याद्वारे जागतिक प्रमुख भाषा कुले व त्यातील मराठी भाषेच्या स्थानाची ओळख करून देणे व मराठी भाषेविषयी अस्मिता जागृती करणे . CO.6 मराठी भाषेची उत्पत्ती केव्हा झाली व त्यासाठी कोणत्या साधनांचा वापर करण्यात आला ,याचा विद्यार्थ्यांना परिचय करून देणे , मराठी भाषाभ्यासाची विद्यार्थ्यांमध्ये निर्माण करणे.

DEPARTMENT OF GEOGRAPHY

Course Outcomes (COs)

Course outcomes (Semester-wise)

Name of the Department	Class	Course code	Course Name	Course Outcome
Geography	**F Y B Com Sem. I and sem.II**		**Elements of Commercial Geography- I and II**	CO 1 Students define environment and human activities; CO 2 Students understand the types of environment and human activities i.e. natural or physical environment and non-physical or cultural environment; CO 3 Students can differentiate between natural and unnatural environment; CO 4 Students understand the effect of environment and geographical conditions on commercial activities;
Geography	**FYBA Sem. I**	**110A 110B**	**Physical Geography and**	CO 5 The geographical maturity of students in their current and future courses shall

	and Sem II		**Human Geography**	develop. CO 6 The student's develops theoretical, applied and computational skills. CO 7 Student-employability enhances and English becomes the medium of their livelihood and personality
Geography	**SYBA Sem. III And Sem. III**	**Gg201 A And Gg201 B**	**G2- Environmental Geography**	CO 1 To create the awareness about dynamic environment among the student. CO 2 To acquaint the students with fundamental concepts of environment geography for development in different areas. CO 3 The students should be able to integrate various factors of Environment and dynamic aspect of Environmental geography. CO 4 To make aware the students about the problems of environment , their utilization and conservation in the view of sustainable development
Geography	**SYBA Sem. III And Sem. IV**	**Gg220 A And Gg220 B**	**S1 Geography of Maharashtra – I *And* Geography of Maharashtra - II**	CO 1 To acquaint students with Geography Of our State. CO 2 To make students aware of the magnitude of problems and prospects in Maharashtra. CO 3 To help students understand the inter relationship between the subject and the society. CO 4 To help students understand the recent trends in regional studies CO 5 To make students aware about the Agriculture problems and prospects of Maharashtra. CO 6 To understand the population distribution and settlement pattern in Maharashtra. CO 7 To understand the concept of rural development. CO 8 To understand the prospectus in Tourism activity in Maharashtra and the role of MTDC and Role of MIDC in industrial development in rural area of Maharashtra
Geography	**SYBA**	**Gg210**	**S2**	Develop practical skill and use of map scale

	Sem. III And Sem. IV	**A And Gg210 B**	**Practical Geography – I (Scale and Map Projections)** ***And*** **Practical Geography – II (Cartographic Techniques, Surveying and Excursion / Village / Project Report)**	and projection. CO 1 To make students aware of the new techniques, accuracy and skills of map making CO 2 Develop practical knowledge and application of cartographical techniques. CO 3 To make students aware of the new techniques, accuracy and skills of Map Making.
Geography	**TYBA**	**Gg 3207**	**G3 Regional Geography of India**	CO 1 Identify natural regions of India based on physical environment and understand the regional variation due to differences in physical environment. CO 2 Understand population of India in terms of their quality and spatial distribution pattern and the prospect and problems of population growth. CO 3 The Student comprehend the linkage s of systematic geography of India with the regional personality of the country CO 4 Understand the location Physiography, Drainage, Climate, and Vegetation of India CO 5 The Students know the silent feature, problems and prospects of Agriculture. CO 6 Understand how economic activities in India are determined by both the physical as well as human environment.
Geography	**TYBA**	**Gg320 8**	**S3 Agricultural Geography**	CO 1 Students Know the importance of agricultural geography in the overall understanding of man and environment relationship. CO 2 Students Identify agricultural regions with special reference to India and understand the evolution and development of these regions. CO 3 Students evaluate the significance of science and technology in the development of agriculture and the implications on society and ecology. CO 4 Students understand the determinants of

				agricultural activities that lead to spatial variation. CO 5 Students demonstrate an understanding of the concept, principles and theories in the field of agricultural systems.
Geography	**TYBA**	**Gg3209**	**S4 Techniques of Spatial Analysis**	CO 1 Read Toposheets interprets the data on the map. CO 2 Students understand how to represent topographical features in the form of contours and profiles. CO 1 Students are able to evaluate the land capability and feasibility through the use of slope and drainage analysis. CO 2 They develop their interest and analyze drama independently. CO 3 Read maps and interpret the data in the Weather map. CO 4 Students solve statistical problems by adopting statistical techniques necessary for computing primary and secondary data and interpret the findings. CO 5 Understand interpretation of Weather images. CO 6 Compute the Correlation of Pearson's and Spearman's methods. CO 7 Understand the representation of Statistical data CO 8 Compute of Measures of Central Tendency of dispersion. CO 9 Calculation and plotting moving Average. Analysis of simple regression
Geography	**M.A./ M.Sc. Part –I Sem. I**	**GGUT 111**	**Principles of Geomorphology**	CO 1 To maintain updated curriculum. CO 2 To take care of fast development in the Knowledge of Geography. CO 3 To enhance the quality and standards of Geography Education. CO 4 To provide a broad common frame work, for exchange, mobility and free dialogue across the Indian Geography and Associated community.
		GGUT 112	**Principles of Climatology**	
		GGUT 113	**Principles of Economic Geography**	
		GGUT 114	**Principles of Population & Settlement**	

			Geography	CO 5 To create and aptitude for Geography in those students who show a promise for higher studies and creative work in Geography. CO 6 To create confidence in others, for equipping themselves with that part of Geography which is needed for various branches of Sciences or Humanities in which they have aptitude for higher studies and original work
		GGUT 115	**Practical in Physical and Human Geography**	
Geography	**M.A./ M.Sc. Part –I Sem. II**	**GGUT -121**	**Geoinformatics - I**	CO 1 To maintain updated curriculum. CO 2 To take care of fast development in the Knowledge of Geography. CO 3 To enhance the quality and standards of Geography Education. CO 4 To provide a broad common frame work, for exchange, mobility and free dialogue across the Indian Geography and Associated community. CO 5 To create and aptitude for Geography in those students who show a promise for higher studies and creative work in Geography. CO 6 To create confidence in others, for equipping themselves with that part of Geography which is needed for various branches of Sciences or Humanities in which they have aptitude for higher studies and original work
		GGUT -124	**Agricultural Geography**	
		GGUT -128	**Industrial Geography**	
		GGDP-131	**Practical in Surveying**	
		GGDT -132	**Geography of Disaster Management**	
		GGUP-134	**Practical of Statistical Techniques for Geography**	
Geography	**M.A./ M.Sc. Part –II Sem. III**	**GGUT -235**	**Geoinformatics -II**	CO 1 To maintain updated curriculum. CO 2 Take care of fast development in the Knowledge of Geography. CO 3 To enhance the quality and standards of Geography Education. CO 4 To provide a broad common frame work, for exchange, mobility and free dialogue across the Indian Geography and Associated community. CO 5 To create and aptitude for Geography in those students who show a promise for higher studies and creative work in Geography. CO 6 To create confidence in others, for equipping themselves with that part of
		GGUT -236	**Geographical Thoughts**	
		GGUT -240	**Urban Geography**	
		GGDP-241	**Practical in Geoinformatics**	
		GGUT -242	**Hydrology**	
		GGUP-247	**Practical in Economic Geography**	

				Geography which is needed for various branches of Sciences or Humanities in which they have aptitude for higher studies and original work
Geography	**M.A./ M.Sc. Part –II Sem. IV**	**GGUT -249**	**Geography of India**	CO 1 To maintain updated curriculum. CO 2 To take care of fast development in the Knowledge of Geography. CO 3 To enhance the quality and standards of Geography Education. CO 4 To provide a broad common frame work, for exchange, mobility and free dialogue across the Indian Geography and associated community. CO 5 To create and aptitude for Geography in those students who show a promise for higher studies and creative work in Geography. CO 6 To create confidence in others, for equipping themselves with that part of Geography which is needed for various branches of Sciences or Humanities in which they have aptitude for higher studies and original work
		GGUT -250	**Oceanography**	
		GGUT -251	**Research Methodology**	
		GGUT -254	**Political Geography**	
		GGDP-257	**Interpretation of Topographical Maps and GPS Survey**	
		GGUT -258	**Geography of World**	

DEPARTMENT OF PSYCHOLOGY

Program specific outcomes

Name of the Department	Program specific outcome
Psychology	PSO 1 Able to measure attitude, aptitude, interest, adjustment skill etc. Within the people. PSO 2 To interpretation of data & make research. PSO 3 Illustration of mental disorder & treatment. PSO 4 Use of psychological test & experiment. PSO 5 Use of motivation theory at work place.

Course outcomes

Name of the Department	Class	Course Name	Course code	Course Outcome
Psychology	**FYBA Sem.1**	**Foundations of Psychology**	**DSC-PSY-1A11221**	CO1 Understand the basic psychological processes & their applications in day to day life. CO 2 Develop the ability to evaluation learning & memory of a life. CO 3 Understand the personality & intelligence of the individuals by developing their psychological process & abstract potentials. CO 4 Understand the importance of motivation & emotional of the individual.
Psychology	**FYBA Sem.2**	**Introductions to Social Psychology**	**DSC-PSY-1B11222**	CO 1 To understand the basics of social psychology. CO 2 To understand the nature of self, attitude & prejudice of the individual CO 3 Assess the interactional processes, love & aggression in our day to day Life CO 4 Understanding the social perception.
Psychology	**SYBA G-2**	**Social psychology**	**2227**	CO 1 To understand the social behaviour. CO 2 To understand self & how to develop it. CO 3 Familiarize student with group behavior. CO 4 To understand improving self esteem. CO 5 To understand importance of close relationship. CO 6 To understand the leadership & its characteristics. CO 7 To able to understand aggression how to control it.
Psychology	**SYBA Sem.1**	**Abnormal psychology**	**2228**	CO1 To understand the criteria of abnormal behavior
				CO2 To acquaint student with the recent classification of abnormality.
				CO3 Understand various perspective of psychopathology.
				CO4 To student expect to acquire knowledge of causes, symptoms and treatment of various psychological disorder.

				CO5 To learned causes and treatment of various disorder.
				CO6 Knowing about the nature, types & nature types & perceptive of anxiety and disorders of childhood and adolescence
Psychology	**SYBA Sem.2**	**Development psychology**	**2229**	CO1 Understand influences of various factors on development
				CO2 To understand basic concept of human development forces
				CO3 To understand birth and birth complication
				CO4 To understand development of language
				CO5 Able to understand cognitive development process
				CO6 To learn all stages of life span and understand its good and bad impact on life
Psychology	**SYBA G-3**	**Industrial and organzatio nal psychology**	**3227**	CO1 To learn about industrial and organizational psychology.
				CO2 To able to understand selection and training programme.
				CO3 To able to learn evaluating job performance and application
				CO4 To understand motivation at the workplace
				CO5 To understand leadership, leadership qualities and function of leaders of industrial psychology
				CO6 To learn new concept 'engineering psychology' for easier work for workers
Psychology	**SYBA (Sem 3)**	**Scientific research and experiment al psychology**	**3228**	CO1 To acquaint the student with the basic concept of experimental psychology and research methodology.
				CO2 To develop the spirit of scientific inquiry in the student
				CO3 To help them generate ideas of research, as well as develop hypothesis and operational definition for variable
				CO4 To help students understand the basic steps in scientific research.
				CO5 To enable the students to undertake and independent small-scale research
				CO6 To equip the students we the basic information and knowledge about test

				administration and scoring and interpretation of the obtained results.
Psychology	**SYBA (Sem 4)**	**Psychology practical : tests and experiments**	**3229**	CO1 To give practical experience to the student in administering and scoring psychological tests and interpreting the scores
				CO2 To familiarize the student with the use of elementary stoical techniques
				CO3 To acquaint the student with the basic procedure and design of psychology experiment
				CO4 To encourage and guide the students to undertake a small-scale research project
				CO5 To encourage student to learn practical application through study tour and visit

Short Term Course Outcomes

Name of the Department	Class	Course Name	Course Outcome
Psychology	**SY/TY BA**	**Family counseling & guidance**	CO1 To understanding of counseling skills
			CO2 To increase in decision making ability
			CO3 To increase in thinking process ability
			CO4 To increase in emotional intensity

Department of Political Science

The Outcomes of UG Course, B. A. in Political Science (General)
At the Completion of B. A. in Political Science (General) the Students:
Programme Outcomes (POs) –

Name of the Program	Program code	Program outcome
Bachelor of Arts	BA	**PO1** Students enable to develop academic proficiency in the subfields of Indian Government and Politics, Comparative Government, International Relations, Public Administration, Political Theory, and Political Ideology. **PO2** Students enable to develop and be able to demonstrate skills in conducting as well as presenting research in political science. **PO3** Students enable to analyze political and policy problems and formulate policy options. **PO4** Students enable to discuss the major theories and concepts of political science and its subfields, and also deliver thoughtful and well articulated presentations of research findings.

Program Specific Outcomes

Name of the Department	Program specific outcome
Department of Political Science	**PO1**: Students enable to discuss about Indian Constitution and Political process. **PO2:** Students enable to discuss Political thinking in western world. **PO3**:Ability to describe Administrative Process and thinking in western thinking, as well as Indian context **PO4:**Capacity to analyses Political Theory and its contemporary impact on civilization **PO5**: Serve as political party member, political adviser, and well citizen of India. **PO6:**Work in elections and political as well as administrative system

Course outcomes

Name of the Department	Class	Course Name	Course code	Course Outcome
Political Science G1	**FYBA Sem.1**	**Introduction to Indian Constitution**	**1116 1A**	**CO1** Students enable to appreciate the various phases of Indian national movement.

				CO2 Students enable to identify the causes, impact of British colonial rule. **CO3** Students enable to understand the philosophy of Indian constitution **CO4** Students enable to understand the fundamental Rights, Duties, and Directive Principles. **CO5** Students enable to understand federal structure of India
Political Science G1	**FYBA Sem.2**	**Introduction to Indian Constitution**	**11162A**	CO1 Students enable to Know Structure And Power Of Union Legislature CO 2 Students enable to Know State Legislature – CO 3 Students enable to Know Union Executive CO 4 Students enable to Know State Executive CO 5 Students enable to Know Judiciary CO 6 Students enable to Know Electoral System
Political Science G2	**SYBA Sem.3**	**An Introduction to Political Science**	**23163**	CO 1 Students enable to understand The Study of Political Science CO 2 Students enable to acquaint with Approaches to Study Political Science such as Normative, Empirical , Feminist CO 3 Students enable to know Basic Concepts of The State, The Market, The Civil Society. CO 4 Students enable to understand the various types of Democracy such as Representative, Deliberative, and Participatory.
Political Science G2	**SYBA Sem.4**	**An Introduction to Political Science**	**24163**	CO 1 Students enable to understand The Study of Basic Political Values like Liberty ,Equality , Justice CO 2 Students enable to acquaint with : Rights: Definition and Meaning , Types and Challenges CO 3 Students enable to know the study of Ideologies such as Nationalism , Socialism ,Fascism CO 4 Students enable to understand concept of International Organizations like United Nations – Structures,

				Functions and Challenges , Regional organizations such as – European union , SAARC, OPEC, NATO and MNCs
Political Science G3	**TYBA G-3**	**Political Ideologies**	**3167**	CO 1 Students enable to study State Origin, Meaning, Definition, Nature and Scope of Ideology; CO 2 Students enable to discuss Meaning, Definitions and Elements Nationalism, Progressive and Reactionary Nationalism, Internationalism; CO 3 Students enable to describe Meaning, Nature and Features, Achievements and Limitations Democratic Socialism, Types of Fabianism, Syndicalism, Guild Socialism; CO 4 Students enable to discuss State Factors responsible for the rise of Fascism, Principles of Fascism, and Concept of Corporate State; CO 5 Students enable to discuss meaning Marxism, Concept of Historical Materialism, Theory of Surplus Value and Marxian State; CO 6 Students enable to discuss thoughts of Phule and Ambedkar on Equality, Religion, and Democracy. CO 7 Students enable to discuss meaning of Gandhism, Truth and Non-Violence, Theory of Satyagraha, Gram Swaraj; CO 8 Students enable to discuss Meaning and Nature Feminism, Liberal Feminism, Feminism in India, Caste, Patriarchy, Women's Representation

Department of History

The Outcomes of UG & PG Course, B. A. in History (Special, General)

Program Specific Outcomes

Name of the Department	Program specific outcome
Department of History	**PSO 1:-** Understand, National, Regional, International history for developing historical sense. **PSO 2:-** Understand Indian culture in reality **PSO 3:-** Develop the feeling of patriotism and Nationalism **PSO 4:-** Prepare themselves for competitive carriers in fields like civil services and teaching. **PSO 5:-** Critically analyse the various sources of history.

Course outcomes

Name of the Department	Class	Course Name	Course code	Course Outcome
History	**FYBA Sem.1**	**Early India: From Prehistory to the Age of the Mauryas**	**11171**	**CO1**. Students enable to understand the history of early India from the prehistoric times to the age of the Mauryas. **CO2** Students enable to highlight the factors and forces behind the rise, growth and spread of civilization and culture of India along with the dynastic history. **CO3** Students enable to understand the contribution of Early Indians to polity, art, literature, philosophy, religion and science and technology **CO4** .It also aims to foster the spirit of enquiry among the students by studying the major developments in early Indian history.
History	**FYBA Sem.2**	**Early India: Post Maurya n Age to the Rashtra kutas**	**11172**	CO1 Students enable to understand the developments in early India after the Mauryas, which finally led to the transition to medieval India.. CO2 Students enable to understand to highlight the consequences of the foreign invasions, particularly on the polity, economy, society and art and architecture.

History	**SYBA**	**History of the Marathas: (1630-1707)**	**2177**	CO1 Student will develop the ability to analyse sources for Maratha History. CO2 Student will learn significance of regional history and political foundation of the region. CO3 It will enhance their perception of 17th century Maharashtra and India in context of Maratha history. CO4 Appreciate the skills of leadership and the administrative system of the Marathas
History	**SYBA Sem.3**	**Medieval India - Sultanate Period**	**2178**	CO1 Students understand the foundation of the Delhi sultanate and the Sultanate administration. CO2 Students understand Recognise the Socio, economic and religious conditions under Vijayanagar Empire. CO3 Identify the condition of India under the Mughal Empire. CO4 Explain the Administration and art and architecture of Mughals. CO5 Analyse the rise of the Marathas and the contribution of Shivaji
History	**SYBA**	**Glimpses of the Modern World - Part I**	**2179**	CO1 It will enable students to develop the overall understanding of the Modern World. CO 2. The students will get acquainted with the Renaissance, major political, socio-religious and economic developments during the Modern World. CO3. It will enhance their perception of the history of the Modern World. COI4. It will enable students to understand the significance of the intellectual, economic, political developments in the Modern World.
History	**TYBA**	**History Of The World in 20th Century (1914 Century (1914**	**3177**	CO1. To enable students to understand the economic transition in World during the 20th Century. CO2. Become aware of the principles, forces, processes and problems of the recent times. CO3. To acquaint the students with growth of various political movements that shaped the modern world. CO4. To highlight the rise and growth of nationalism as a movement in different parts of the world.
History	**TYBA**	**Introduction to History**	**3178**	CO1. To orient students about how history is studied, written and understood.

				CO2. To explain methods and tools of data collection CO3. To understand the meaning of Evolution of Historiography. CO4. To study the Various Views of Historiography. CO5. To study the approaches to Historiography. CO6. To study the types of Indian Historiography. CO7. To describe importance of inter-disciplinary research. CO8. To introduce students to the basics of research. CO9. To acquaint the student with the recent research in History. CO10. Learn how to use sources in their presentation
History	**TYBA**	**History Of Asia In 20th Century (1914 –1992)**	**3179**	CO1. To orient the students with political history of Asia. CO2. To enable students to understand the economic transition in Asia during 20th Centuries. CO3. Understand the important developments in the 20th century Asia in a Thematic approach. CO4. To provide students with an overall view and broad perspective different movements connected with Nationalist aspirations in the region of Asia in general. CO5. To empower students to cope with the challenges of globalization.

Department of Economics
Program Specific Outcomes

Name of the Program	Program Outcomes
Bachelor of Arts	After successfully completing B.A. Economics Programme students will be able to: Program Outcomes (PO's) Economics **PO1: Technical knowledge:** use various tools for economic analysis and apply knowledge of the Micro and Macro approach for the personal benefit and for the benefit of national and the global economy. **PO2 : Problem analysis:** recognize formulate and study the problems of various sectors of the Indian economy, regional economy and the global economy with the help of the economic ways of thinking, theories, concepts and laws **PO3: Design/development of solutions:** Design policies and solutions for the economic problems of India and the global economy at large. **PO4 :Modern tool usage:** Create, select, and apply appropriate techniques, resources, and modern IT tools for economic analysis **PO5: The student and society:** Apply the knowledge of economic concepts, laws and theories, for a better economic environment for the society at large. **PO6: Environment and sustainability:** develop an economic way of thinking leading to the economic growth, protecting environment with sustainable development **PO7 : Ethics:** inculcate ethical values in the business and the government sector and define responsibilities and norms in the business environment and the policies of the government in the context of the welfare of the society **PO8: Individual and team work:** work efficiently as an individual, and as a part or leader of a team, having interdisciplinary approach through the study of International Economics. **PO9**: **Communication:** Communicate effectively on the economic activities

	with the community and the society through the acquiring knowledge of the national and the global economy. **PO10**: **Project management and finance:** apply knowledge of the economic principles, functioning of various sectors of the economy as an individual on various private and government projects and devise sources of finance. **POS11: Life-long learning:** understand the nature of any discipline as a continuous process of development and welfare of the human being.

Program Specific Outcomes

Name of the Program	Program Outcome
Bachelor of Arts	**PSO**: Explain the basic concepts, laws and theories related to the economic behaviour of the human being. **PSO**: Inculcate the economic way of thinking. **PSO:** Understand the nature of any discipline as a continuous process of development and welfare of the human being. **PSO:** Enable students to understand and comprehend the current business scenario, agricultural scenario and growth in the Indian context. **PSO:** Understand current industrial, service and other sectorial growth in the Indian context. **PSO**: Apply economic analysis in practice.

Course Outcomes (Semester -Wise)

Name of the Department	Class	Course Code	Course Name	Course Outcome
Economics	**FYBA SEM-I**	**G-1**	**Indian Economic Environment**	After successfully completing this course, students will be able to: **CO1-**To familiarize the students with the recent developments in the Indian Economy. **CO2-** To provide the students with the background of the Indian Economy with focus on contemporary issues like economic environment. **CO3-**To help the students to prepare for varied competitive examinations. **CO4-**To enable students to understand and comprehend the current business scenario, agricultural scenario and other Sectorial growth in the Indian context. **CO5-**To make the student aware of the developments such as MSMEs, Digital Economy, E-Banking, BPO & KPO, etc.

	FYBA SEM-II	**G-1**	**Indian Economic Environment**	After successfully completing this course, students will be able to: **CO1-** Students enable to create value in young youth regarding the patriotism. **CO2-** Students enable to understand the various Government of Indian acts their provision and reforms. Students enable to know the salient features in making of Indian constitution. **CO3-** Students enable to appreciate the socio-economic political factors which lead to the Freedom struggle. **CO4-** Students enable to appreciate the fundamental rights and duties and the directive principle of state policy. **CO5-** Students enable to evaluate the evolution, functioning and consequences of political parties in India.
	SYBA SEM-I	**CC-1C**	**Financial System**	After successfully completing this course, students will be able to: **CO1**- Descried evolution of Financial System in the west and in India. CO2- Describe functioning and working of the commercial and cooperative banks. **CO3-** Explain functions and working of the central bank of country and Reserve Bank of India. **CO4**- Explain principles of commercial banks, different types of accounts and customers of various types of these banks.
		DSE – 1A	**Micro Economics**	After successfully completing this course, students will be able to **CO1:** Describe basic economic problems and look towards the economy with the microeconomic approaches. **CO2:** Explain division of market from consumer and supply of the products from the producers. **CO3**: Interpret concepts related to utility, demand and supply in market. **CO4:** Describe factors of production involved in process of production and theories related to their pricing

		DSE – 2A	**Macro Economics**	After successfully completing this course, students will be able to: **CO1:** Illustrate a macroeconomic approach towards economy in contrast with the microeconomic approach. **CO2:** Make a detailed enquiry into generation, calculation and measurement of national income **CO3:** Describe way of money facilitates exchanges and develop market and the economy. **CO4:** Explain human behaviour creating effective demand which determines level of output and employment in economy. **CO5:** Evaluate developments in theory of employment of economics.
	SYBA SEM-II	**CC-1D**	**Financial System**	After successfully completing this course, students will be able to: **PO1-** Examine supply of money in economy and its control by the Reserve Bank of India. **CO2-** Analyze functioning and usage of various types of negotiable instruments used in financial sector of the economy. **CO3-** Evaluate developments and challenges in the sector of the cooperative banking India **CO4-** Describe new applications of technology evolved in the banking sector.
		DSE – 2A	**Micro Economics**	After successfully completing this course, students will be able to **CO1:** Analyse process of production in economy, laws and variables related to the production function. **CO2**: Demonstrate various forms of market and price determination concept of firm. **CO3:** Describe welfare economics, and variables involved in the welfare function and thoughts of the welfare economists. **CO4**: Apply the tools used for economic analysis.
				After successfully completing this course, students will be able to:

		DSE – 2A	**Macro Economics**	**CO1:** Analyse approaches towards value of money and price level in economy. **CO2**: Interpret causes and controlling measures of cyclical fluctuations in economy. **CO3:** Assess macro policies-monetary and fiscal and its applications in the functioning of the economy. **CO4:** Interpret causes, effects and controlling measures of inflation and deflation.
	SYBA SEM- I	**SEC-I SEC2A**	**Basic Concept of Research Methodology -I (Skill Enhancement Course) (SEC)**	After successfully completing this course, students will be able to: **CO1-** Demonstrate his/her understanding of sampling methods and the ability to use collection of data. **CO2-** Identify the appropriate sample techniques for different kinds of research questions.
	SYBA SEM- II	**SEC-II SEC-2B**	**Basic Concept of Research Methodology – II (Skill Enhancement Course) (SEC)**	After successfully completing this course, students will be able to: **CO1-** Identify the appropriate source of data in relation to the collection of Research data. **CO2-** Able to classify and present the collected data in the form of graph, bar diagram, chart etc
	TYBA	**3157**	**Economic Development and Planning (G3)**	After successfully completing this course, students will be able to: **CO1:** Describe concepts of Development and Growth of economies. **CO2:** Describe characteristics of developed or developing economies. **CO3:** Analyze constraints of process of development of various countries. **CO4:** Evaluate theories and ways of development of economies. **CO5:** Illustrate role of foreign capital in undeveloped economies.

				CO6: Appraise approaches towards process of development take place in an economy **CO7:** Assess instruments of macroeconomic policies, monetary and fiscal along with their role in Controlling cyclical fluctuations in an economy. **CO8**: Explain overview of economic planning in India and inclusive approach towards growth of the Indian economy.
	TYBA	**3158**	**International Economics**	After successfully completing this course, students will be able to: **CO1**: Describe international economics of open economies and international trade flows among various countries. **CO2**: Evaluate theories related to international trade for profit maximization. **CO3**: Analyze process of gains from trade and determination of terms of trade. **CO4:** Describe concept of balance of payments and measures to correct deficit in balance of payments. **CO5**: Assess trade policy and concepts related to trade policy like quotas tariffs and exchange rates. **CO6:** Interpret India's foreign trade, policy and its participation in international trade organizations like World Trade Organization. **CO7**: Demonstrate measures to promote export and regulation of foreign trade in India.

	TYBA	**3159**	**Public Finance**	After successfully completing this course, students will be able to: **CO1:** Describe role of Government in an economy and way of maximum social advantage in view of Dr. Dalton. **CO2**: Describe sources of income, types and principles of expenditure of government and general importance of public finance. **CO3:** Analyse public expenditure in India and effects of current trend of growth in public expenditure **CO4:** Analyse concepts and principles related to public revenue, taxation and status of Indian taxation. **CO5:** Examine external and internal debts of government and ways to repay public debts. **CO6:** Illustrate concepts of budgeting and Indian budgeting with special reference to gender budget. **CO7:** Describe purpose and process of deficit financing in economy and trends in deficit financing in India. **CO8:** Describe federal finance in India and problems related to center and state financial relationships.
	FYB.Com SEM-I	**--**	**Business Economics**	After successfully completing this course, students will be able to: **CO1-** Ability to apply the concepts of micro economics such as demand, supply, revenue, cost, elasticity, etc. **CO2-** Ability to analyze and demonstrate knowledge of the basic theories/laws in economics- law of demand, law of supply, production function, etc **CO3-** At the end of the course, the student

				should be able to evaluate Microeconomic concepts, models and its use in real life situations.
	FYB. Com SEM-II	**--**	**Business Economics**	After successfully completing this course, students will be able to: **CO1-** The students acquire the knowledge of Demand forecasting in sales management, Price fixing, market competitors. **CO2-** To understand how the business organizations work by applying economic principles in their business management.
	SYB Com SEM-I	**233**	**Business Economics (Macro**	After successfully completing this course, students will be able to: **CO1:** Explain nature, scope, importance and limitations of Macro Economics. **CO2:** Describe concepts and measurements of National Income of India. **CO3:** Describe functions of Money and control of credit by RBI in Indian economy.
	SYB Com SEM-II	**233**	**Business Economics (Macro)**	After successfully completing this course, students will be able to: **CO1:** Explain concept of value Money and theories of value of Money. **CO2:** Analyze causes and its effects of Inflation and Deflation in Indian economy. **CO3:** Explain features and phases of trade cycle of Economy.

	TYBCOM	**302(A)**	**Indian and Global Economic Development**	After successfully completing this course, students will be able to: **CO1**: Describe comparison of Indian economy with developed economies. **CO2**: Explain agricultural development in India science independence. **CO3:** Describe industrial development in India since 1991. **CO4:** Describe infrastructural development in India since 1991. **CO5**: Describe concept of Human Resource Development in world. **CO6:** Explain role of foreign capital in global economic development. **CO7:** Illustrate concept of balance of trade and balance of payment in relation with foreign trade **CO8:** Elaborate objectives and structure of reginal and international economic cooperation.

Name of the Program	**Program Outcomes**
Master of Arts	After successfully completing M.A. Economics Programme students will be able to: Program Outcomes (PO's) Economics **PO1:** Technical knowledge: use various tools for economic analysis and apply knowledge of the Micro approach for the Individual benefit. **PO2 :** Problem analysis**:** student should be able to evaluate Micro economic concepts, models and its use in real life situations. **PO3:** Design/development of solutions: Design policies and solutions for the economic problems of India and the global economy at large. **PO4:** Modern tool usage: Create, select, and apply appropriate techniques, resources, and modern IT tools for economic analysis **PO5:** Environment and sustainability**:** develop an economic way of thinking leading to

	the economic growth, protecting environment with sustainable development **PO6:** Ethics**:** inculcate ethical values in the business and the government sector and define responsibilities and norms in the business environment and the policies of the government in the context of the welfare of the society. **PO7:** Prepare students to develop critical thinking to carry out investigation about various socio-economic issues objectively while bridging the gap between theory and practice. PO8: Equip the student with skills to analyse problems, formulate an hypothesis, evaluate and validate results and draw reasonable conclusions thereof. **PO9:** Prepare students for pursuing research or careers that provide employment through entrepreneurship and innovative methods. Because today's unemployment problem can also be solved by developing the micro and small entrepreneurship **PO10:** Prepare students to develop own thinking /opinion regarding current national or international policies and issues.

Program Specific Outcomes

Name of the Program	Program Outcome
Master of Arts	**PSO**: Explain the basic concepts, laws and theories related to the economic behaviour of the human being. **PSO**: Inculcate the economic way of thinking. **PSO**: Apply economic analysis in practice. **PSO:** Understand the nature of any discipline as a continuous process of development and welfare of the human being. **PSO:** discuss the modern developments in economics such as Modern theories in Economics. **PSO:** To provide the students with a unique opportunity of obtaining a professional qualification in economics focusing on the advanced practical areas. **PSO:** Understand basic concepts of economics and to analyse economic behaviour in practice **PSO:** Understand the economic way of thinking. **PSO:** The ability to analyse historical and current events from an economic perspective. **PSO:** The ability to write clearly expressing an economic point of view. **PSO:** Students will be able to effectively communicate economic ideas. **PSO:** Be exposed to alternative approaches to economic problems through exposure toCourse work in allied fields.

Name of the Department	Class	Course Code	Course Name	Course Outcome
Economics	**MA I SEM I**	**EC-1001**	**Micro Economic Analysis I**	**CO1-** To apply the concepts of micro economics such as demand, supply, Revenue, cost, elasticity, etc. **CO2-** To to analyze and demonstrate knowledge of the basic theories/laws in micro economics
		EC-1002	**Public Economics I**	After successfully completing this course, students will be able to: **CO1:** Describe role of Government in an economy **CO2**: Describe sources of income, types and principles of expenditure of government and general importance of public finance. **CO3:** Analyse public expenditure in India and effects of current trend of growth in public expenditure
		EC-1003	**International Trade**	After successfully completing this course, students will be able to: **CO1**: Describe international economics of open economies and international trade flows among various countries. **CO2**: Evaluate theories related to international trade for profit maximization. **CO3**: Analyse process of gains from trade and determination of terms of trade. **CO4:** Describe concept of balance of payments and measures to correct deficit in balance of payments.
		EC-1004	**Rural Economics**	After successfully completing this course, students will be able to: **PO1**- Ability to develop an understanding of the rural sector with its intricacies and imperfections and to be able to construct intellectual dialogue on the Challenges of agriculture sector of the Indian Economy.

				CO2 Ability to analyze and evaluate the subject with reference to various aspects of rural economies **CO3**- discussed and analyzed that concern sustainable development of rural economies. **CO4**- Describe new applications of technology evolved in the banking sector.
	MA I SEM II	**EC-2001**	**Micro Economic Analysis II**	**CO1**- The students acquire the knowledge of Demand forecasting in sales management, Price fixing, market competitors. **CO2-** student should be able to evaluate Micro economic concepts, models and its use in real life situations
		EC-2002	**Public Economics II**	After successfully completing this course, students will be able to: **CO1:** Analyse concepts and principles related to public revenue, taxation and status of Indian taxation. **CO2:** Examine external and internal debts of government and ways to repay public debts. **CO3:** Illustrate concepts of budgeting and Indian budgeting with special reference to gender budget.
		EC-2003	**International Finance**	After successfully completing this course, students will be able to: **CO1**: Assess trade policy and concepts related to trade policy like quotas tariffs and exchange rates. **CO2:** Interpret India's foreign trade, policy and its participation in international trade organisations like World Trade Organisation. **CO3**: Ability to understand the recent developments and changes in international banking, international banking agreements etc. **CO4**: Ability to understand the role of international economic organization and global crisis development.
		EC-2004	**Labour Economics**	After successfully completing this course, students will be able to:

				PO1: Ability to analyze and evaluate the subject with reference to various aspects of Labour economics. **PO2:** 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 w.r.t. the Indian Economy.
	MA II SEM I	**EC-3001**	**Macro Economics Analysis-I**	After successfully completing this course, students will be able to: **PO1:**To understand Macroeconomics into only a scientific method of analysis; but also a body of empirical economic knowledge. **PO2**:To stimulate among the students an awareness on macroeconomic challenges and policy management in progressive nations **PO3:** Understand various concepts of National income. **PO4**:To discuss the modern developments in macroeconomics. **PO5**:To understand Determination of output and employment Effects of change in Aggregate Demand and Supply Curves - Classical Approach. **PO6**:Understand nature classical & Keynesian theories of employment **PO7**:To understand Fiscal policy and crowding out effect, Optimum Policy mix with IS-LM Model. **PO8**:Understand measures of money supply. **PO9:**Understand various theories of demand for money. **PO10**:To provide a thorough understanding of the principles of macroeconomics and the application of macro economics concepts in real-life situations.
		EC-3002	**Growth & Development -I**	After successfully completing this course, students will be able to: **PO1:**Understand conceptualizing growth and development, Characteristics of LDCs. **PO2**:To enable learning and understanding of the basic concepts and process to measure the growth and economic development etc.

				PO3: To understand the world distribution of income and Development gap. **PO4:**Understand concept of poverty & development **PO5:**Understand population & human development **PO6:**To understand Theories of Economic Growth and Development To analyze and evaluate the obstacles in the process of economic growth and development
		EC-3003	**Research Methodology-I**	After successfully completing this course, students will be able to: **PO1**:To learn and appreciate alternative methodologies in terms of sampling designs, data collection techniques and in the methods of data analysis. **PO2**:Understand concepts of research designing **PO3**:Understand concepts of hypothesis testing methods **PO4**:Able to understand measuring central tendency **PO5**:Able to understand dispersion and co-efficient **PO6:**Able to understand methods of Correlation **PO7**:Understand contents of report writing **PO8:**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.

		EC-3004	**Demography**	After successfully completing this course, students will be able to **PO1:**To understand Nature, Scope and Relationship between development and Population Growth. **PO2:** Understand various theories of Population. **PO3**:To understand Structure and characteristics Indian population. **PO4:** To understand an analysis of Indian population policy. **PO5:**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.
	MA II SEM II	**EC-4001**	**Macro I Economics Analysis II**	After successfully completing this course, students will be able to: PO1:To learn and appreciate alternative methodologies in terms of sampling designs, data collection techniques and in the methods of data analysis. **PO2:** Understand concepts of research designing. **PO3:**Understand concepts of hypothesis testing methods **PO4**:Able to understand measuring central tendency **PO5:**Able to understand dispersion and co-efficient **PO6**:Able to understand methods of correlation **PO7:**Understand contents of report writing **PO8:**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.
		EC-4002	**Growth & Development II**	After successfully completing this course, students will be able to: PO1:Understand the role of agriculture and Industry in development. **PO2**:To understand the employment argument

				Police Environment. **PO3**:Understand issues & techniques of economic growth. **PO4:**Understand some growth models **PO5**:Students will be able to describe Trade as an engine of growth. **PO6:** To understand the role of IMF, World Bank, FII and FDI . **PO7:**To understand the role of the government and markets in the developmental process **PO8**:To enable learning and understanding of the basic concepts and process to measure the growth and economic development etc. To analyze and evaluate the obstacles in the process of economic growth and development.
		EC-4003	**Research Project(Only Regular Students)**	After successfully completing this course, students will be able to: **PO1:**To learn and appreciate alternative methodologies in terms of sampling designs, data collection techniques and in the methods of data analysis. **PO2:**Understand concepts of research designing **PO3:**Understand concepts of hypothesis testing methods **PO4:**Able to understand measuring central tendency **PO5**:Able to understand dispersion and co-efficient **PO6:** Able to understand methods of correlation **PO7**:Understand contents of report writing **PO8**: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.

		EC-4004	**Economics of Environment**	After successfully completing this course, students will be able to **PO1**:To discuss various analytical tools to comprehend various environmental issues. **PO2:** Analyze and evaluate the subject with reference to various aspects of the economics of environment. **PO3:** Develop an understanding of the economics of environment and various **PO4:** Analytical tools to comprehend environmental issues.

Faculty of Commerce

Programme: B.Com (Banking & Costing)

Programme Outcomes (POs)-B.COM

Sr. No.	Programme Outcomes
1	Competent Business Manager Associates with requisite knowledge, skills and right attitude which is need of today's market scenario
2	Good Accountant with necessary skill acquired through some add-on courses
3	Prospective Leader of Global Business Houses
4	Future Entrepreneur with professional and ethical values
5	Learning Attitude to Sustain in Global Competitive world

Programme Specific Outcomes (PSOs)

Sr. No.	Programme Specific Outcomes (Banking and Finance)
1	1. Gain an insight into the functioning role of financial instructions in the Indian economy.
2	Understand of operations and developments in financial market in India.
3	Get acquainted with Banking Law and Practice in relation to the Banking system in India.
4	Understand the legal aspects of Banking transactions and its implications as Banker and Customer.
5	Become aware of the Banking Law and Practice in India.

Sr. No.	Programme Specific Outcomes (Cost and Works Accounting)
1	Able to understand basic concepts in Cost & Works Accounting
2	Able to classify the expenditure, analyses it, prepare report and comment on it.
3	Apply the knowledge to prepare cost sheet and work in a costing department of any organization as an associate.
4	Able to work and handle inventory/store department as a store keeper
5	Prepare for post graduate studies and to achieve success in their professional careers.

Course Outcome (COs):

Programme	Course Code	Course Name	Course Outcome
F. Y. B.Com	101	**Compulsory English**	-
	102	**Financial Accounting**	CO1 The concepts, nature and purpose of financial statements in relationship to decision making. CO2 How to use the fundamental accounting equation to analyze the effect of business transactions on an organization's accounting records and financial statements. CO3 How to use a basic accounting system to create the data needed to solve a variety of business problems. CO4 How to use accounting information to solve a variety of business problems.
	103	**Business Economics (Micro)**	-
	104(A)	**Business Mathematics and Statistics**	CO1 Prepare for competitive examination. CO2 Understand the concept of simple ,compound interest CO3 Know about concept of population, sample & frequency distribution to make decision. CO4 Understand technique of different type of Index Number (SENSEX & NIFTHY)
	105	**Org. Skill Development**	
		Banking and Finance	CO1 Student is acquaint with theoretical knowledge of Evolution, functions, services of banks CO2 Student can open and operate his bank account. CO3 Student will know different instruments used in banking with their legal aspect.
		Commercial Geography	CO1. The concept of Organization and Modern Office. CO 2. The role and Functions of Office Manager. CO 3. How to develop the insights

			regarding Organizational Skills for Office Managers. CO 4. The functioning of Modern office appliances equipments and e- format records.
	106	**Consumer Protection and Busi. Ethiscs**	CO1. Aware about consumer right, Duties and mechanism for resolving their disputes. CO2. Understand about low relating to consumers. CO3. Know students with role of business ethics in various functional areas.
	107	**Marathi**	-
		Hindi	-
S. Y. B.Com	**201**	**Business Communication**	CO1.The concept, process and importance of communication. CO2.The new technologies in business communication. CO3. How to use various soft skills in business. CO4. How to draft various letters in business. CO5. Business communication skills through the application and exercises.
	202	**Corporate Accounting**	CO1. Corporate Accounting in conformity with the provisions of Companies Act and Accounting as per Indian Accounting Standards. CO2. The conceptual aspect of corporate accounting. CO3. Various skills about Computerized Accounting and Accounting Standards. CO4.Various concepts related to companies CO5. i.e. liquidation, amalgamation, absorption, re-construction and holding company.
	203	**Business Economics (Macro)**	-
	204	**Business Management**	CO1.Understand basic knowledge and business management concept. CO2. Know about various function of

			management.
	205	**Elements of Company Law**	CO1. Student get key information from formation of company up to winding up of the company. CO2. Student understands the roles, duties and responsibilities of key persons CO3. Student acquaint with the knowledge of various documents involved in from formation up winding up of company.
	206	**Banking and Finance**	CO1. Role and structure of Indian banking system. CO2.Various types of banks and their special features. CO3.The reforms and other developments in the Indian Banking. CO4.The functions and role of Reserve Bank of India
		Cost and Works Accounting	CO1. Student is acquaint with basics of cost accounting CO2.Student can classify, analyses, summarize and comment on cost data CO3.Student learns procedural aspect in handling, recording of material and how to maintain various books of materials
T. Y. B.Com	**351**	**Busi. Regulatory Framework (M. Law)**	CO1. The basic concepts of contract and its contents. CO2. Acquaint with knowledge of nature and performance and breach of Contracts. CO3.Handling the registration and dissolution of LLP CO4.To get training to face emerging issues relating Sale of Goods Act.
	352	**Advanced Accounting**	CO1.Developing understanding on applicability of various accounting standards. CO2.Knowledge about of the accounting for capital restructuring. CO3.Conceptual Clarity and Practical understanding of preparation of final accounts of banking companies CO4.Concept of analysis of financial statements.

	353	**Indian and Global Eco. Development**	-
	354	**Auditing and Taxation**	CO1. Acquaint with knowledge and maturity to understand concept of Auditing, types of Audit and Audit Process. CO2. Conceptual Clarity and Practical understanding of Vouching Verification and valuation and Types of Audit Report. CO3.The concept and principles of Auditing, Audit process, Assurance Standards, Tax Audit, and Audit of computerized Systems. CO4.Understanding new concepts under Audit of Computerized Systems & Forensic Audit CO5.How to prepare the Audit report and its importance.
	355B	**Banking And Finance – II**	CO1.Understanding the Indian Financial System. Understanding the meaning, structure and role of Financial System in India. CO2.Understanding the meaning, functions, credit instruments, deficiencies and recent development in Money Market in India. CO3.Understanding the meaning, definition functions, credit instruments, deficiencies and recent development in Capital Market in India CO4.The Financial Markets and its various segments. CO5.The operations and developments in financial markets in India.
	355E	**Cost and works accounting – II**	CO1.To remember and understand the concept of overhead and classification of overheads CO2.Understanding the significance of overheads in the total cost of product/service. CO3.Know about various methods of costing and their applications.
	356 B	**Banking And Finance – III**	CO1.Understanding the Banking Regulation Act 1949 with Objectives and selective Provisions. CO2.Understanding the Provisions of

			Negotiable Instruments Act, 1881 CO3.Banking Law and Practice in relation to the Banking system in India. CO4.The legal aspects of Banking transactions and its implications as Banker and Customer.
	356 E	**Cost and works accounting – III**	CO1. Understanding of important concepts in Marginal Costing. CO2.Application of Marginal Costing Technique. CO3.Management information system in Costing. CO4.Cost Accounting Standards issued by Institute of Cost and Management of India.

Faculty of Science
Program outcome
Bachelor of Science

Name of the Program	Program code	Program outcome
B.Sc.		**PO1** Acquire the knowledge with facts and figures related to various subjects in pure sciences such as Chemistry, Botany, Zoology, Microbiology, Physics Mathematics, etc. **PO2** Understand the basic concepts, fundamental principles and the scientific theories related to various scientific phenomena and their relevancies in the day-to-day life. **PO3** Acquire the skills in handling scientific instruments, planning and performing in laboratory experiments. **PO4** The skills of observations and drawing logical inferences from the scientific experiments. **PO4** Analyse the given scientific data critically and systematically and the ability to draw the objective conclusions. **PO5** Think creatively to propose novel ideas in explaining facts and figures or providing new ideas or new solutions to the problems. **PO6** Realise the knowledge of subjects in other faculties such as humanities, performing arts, social sciences etc. can have greatly and effectively influence which inspires in evolving new scientific theories and inventions. **PO7** Develop scientific outlook not only with respect to science subjects but also in all aspects related to life. **PO8** Develop various communication skills such as reading, listening, speaking, etc., which will help in expressing ideas and views clearly and effectively. **PO9** Imbibed ethical, moral and social values in personal and social life leading to highly cultured and civilized personality. **PO10** Develop flair by participating in various social and cultural activities voluntarily, in order to spread knowledge, creating awareness about the social evils, blind faith, etc.

Department of Microbiology
Program specific outcome

Name of the Department	Program specific outcome
Microbiology	A general course emphasizing distribution, morphology and physiology of microorganisms in addition to skills in aseptic procedures, isolation and identification. This course also includes more material covering Immunology, Molecular Biology, Medical microbiology, Biochemistry, Fermentation Technology, Applied microbiology etc. **PSO1.**Students will be able to communicate scientific information effectively, especially relating to microbiological organisms, and the roles of microbial organisms in ecosystem function and health-related issues **PSO2.**Students will be able to collect, analyze and interpret scientific data, including developing a familiarity with microbiology laboratory techniques and safety procedures **PSO3.**Students will be able to apply the scientific method as a demonstration that they understand its application furthering our knowledge of the microbial world **PSO4.**Students will be able to describe fundamental principles of biology e.g., central dogma, diversity of life, inheritance and how these principles relate to microorganism **PSO5.**Students will be able to describe unique microbial genetic systems (i.e., prokaryotic genomes, lateral gene transfer, plasmid structure and function, etc.) **PSO6.**Students will appreciate the biological diversity of microbial forms, and appreciate that this diversity results from evolutionary processes **PSO7.**Students will gain familiarity with the unique role of

	microbes play in genetic modification technologies (i.e., creation of GMOs, industrial applications, gene therapy, etc.) **PSO8.**Students will gain familiarity with the role of microbes in human disease, the role of microbes in issues of international health, and the human immune response to microbial infection **PSO9.**Students will gain familiarity with the role of microbes in the context of ecosystem function (e.g., microbial ecology, microbiome, etc.)

Course outcomes (Semester-wise)

Name of the Department	Class	Course Name	Course code	Course Outcome
Microbiology	**F.Y.BSc**	**Introduction to microbial world**	**MB-111**	On successful completion of this subject the students will gain basic knowledge about Microbiology starting from history, applications and basic knowledge about the microorganisms. CO1. Get an idea about the historical events in microbiology CO 2. Understand the diversity of microbial world existing in the nature CO 3. Understand the taxonomic classification of microorganisms. CO 4. Know the scope of microbiology in varous fields.

				CO 5.To inculcate sense of scientific responsibilities and to create social and environmental awareness
Microbiology	**F.Y.BSc**	**Basic techniques in Microbiology**	**MB -112**	CO 1. This subject will provide knowledge of Basic laboratory techniques e.g. parts of microscope, type and its principles. CO 2. Get the theoretical concepts of related stain • Understand different methods of staining techniques • Understand nutritional requirements of bacteria . CO 3.Understand the basic laboratory techniques CO 4. Understand working of different types of microscopes and various microscopy techniques. CO 5. Understand the structural organization of microbial world. CO 6. To introduce the concepts of applications and research in microbiology CO 7.They will be able to illustrate the construction and working of different fermenters.
Microbiology	**F.Y.BSc.**	**Bacterial cell and Biochemistry**	**MB- 121**	CO 1 .To introduce the structure, chemical composition and functioning of bacterial cell components and cellular structures.

				CO 2. To enrich students knowledge about bacterial cytology. CO 3. Develop the fundamental knowledge about various biomolecules. CO 4. To enrich students knowledge about classification of bacteria and viruses.
Microbiology	**F.Y.BSc**	**Microbial cultivation and Growth**	**MB-122**	CO 1. To enrich students' knowledge about microbial growth and train them for pure microbial Technology. CO 2. To make students aware about growth parameters and growth conditions and to help them in preparing laboratory mannuals and standard operating practices. CO 3. To understand the isolation techniques for various microorganisms from natural and extreme environments and to study their prominent features. CO 4. motivate students to to built their successful career in microbiology
Microbiology	**S.Y.BSc**	**Medical Microbiology & Immunology**	**MB-211**	CO 1. To inculcate knowledge in relationship between human disease and micro organisms, pathogenicity, laboratory diagnosis and treatment

				methods. CO 2.The course provides the conceptual basis for understanding pathogenic microorganisms and the mechanisms by which they cause disease in the human body. CO 3. It also provides opportunities to develop informatics and diagnostic skills, including the use and interpretation of laboratory tests in the diagnosis of infectious diseases. CO 4. Demonstrate an understanding of key concepts in immunology. CO 5.Understand the overall organization of the immune system
Microbiology	**S.Y.BSc**	**Bacterial physiology & Fermentation thechnology**	**MB -212**	CO 1. Conceptual knowledge of properties, structure, function of enzymes CO 2. They will be able to explain the importance of enzymes in living cell and distinguish between different classes of enzymes and their function CO 3. Students will be able to illustrate and explains the various metabolic pathways of the cell in particular prokaryotic. CO 4. They will be able to explain

				the method of cultivation of microorganisms on large scale. CO 5. They will be able to distinguish between the types of fermentation processes and fermentors. CO 6.They will be able to illustrate the construction and working of different fermenters.
Microbiology	**S.Y.BSc**	**Bacterial Genetics**	**MB- 221**	CO 1. Students will be able to summarise the basicst of genetics eg., DNA, RNA structure. CO 2. They will be able to paraphrase the concept of gene. CO 3. They will be able to interpret the concept of central dogma of molecular biology and its mechanism. CO 4. They will be able to describe the basic molecular processes like DNA replication, transcription and translation. CO 5. They will be able to explain various types of mutations and their causes.
Microbiology	**S.Y.BSc**	**Air, Water &Soil Microbiology**	**MB-222**	CO 1. Students will be able to summarise both air and water microflora. CO 2. They will be able to describe

				various techniques to measure the air and water microflora. CO 3. To inculcate knowledge in role of microorganisms in eco system, methods of air sanitation ,water purification and sewage treatment**.** CO 4. They will be able to summarise the important soil microorganisms. Their role in agriculture. CO 5. They will be able to inter relate that how soil microorganisms helps in maintaining with elemental cycles in nature.
Microbiology	**T.Y.BSc**	**Medical Microbiology**	**MB-331,MB-341**	CO 1. To inculcate knowledge in relationship between human disease and micro organisms, pathogenicity, laboratory diagnosis and treatment methods. CO 2. Various concepts of medical microbiology CO 3. Role of international organizations such as CDC and WHO CO 4. Anatomy of human system Various chemotherapeutic agent and their mode of action

Microbiology	**T.Y.BSc**	**Microbial Genetics**	**MB-332,MB-324**	On Successful Completion of this subject the students should have a sound knowledge about microbial genetics and the Recombinant DNA Techniques used in microbiological research. CO 1. Concept of central dogma of molecular biology CO 2. Process of DNA replication transcription, translation CO 3. Various method used for genetic recombination CO 4. Concept of gene regulation CO 5. Principals and applications of various molecular technique CO 6. Gene library and gene mapping**.**
Microbiology	**T.Y.BSc**	**Enzymology**	**MB-333,**	To inculcate knowledge about Enzyme structure, function, kinetics and application in research. CO 1. Vitamin as cofactor, its role metabolism, CO 2. Regulation of enzyme CO 3. Various methods used for enzyme purification CO 4. Enzyme assays
Microbiology	**T.Y.BSc**	**Metabolism**	**MB-343**	On Successful Completion of this subject the students should have a

				sound knowledge about CO 1. Concept of bioenergetics CO 2. Anabolism and catabolism with examples CO 3. Laws of thermodynamics
Microbiology	**T.Y.BSc**	**Principle of Immunology**	**MB-334,MB-344**	To inculcate knowledge in human immune response towards microorganisms. CO 1. Concept related to cells and organs related to immune system CO 2. Immune response and immune mechanism CO 3. Immunological disorders CO 4. Various antigen antibody reaction, CO 5. Different immunological techniques CO 6. Concepts related to transplantation
Microbiology	**T.Y.BSc**	**Fermentation technology**	**MB-335,MB-345**	Enable the student to get sufficient knowledge about CO 1. Strain improvement CO 2. Upstream and down stream process CO 3. Patents CO 4. Application of m.o.s capable of producing commercially important products on industrial scale

Microbiology	**T.Y.BSc**	**Food and Dairy Microbiology**	**MB-336**	Enable the student to get sufficient knowledge in relationship between food and microbes, techniques used in food processing and Dairy industry. CO 1. Milk microbiology- Preservation technique used in milk industry, Check quality of milk CO 2. Food microbiology – Preservation technique used in food industries, Microbial food borne illnesses.
Microbiology	**T.Y.BSc**	**Environmental and Agricultural Microbiology**	**MB-346**	To inculcate knowledge in role of microorganisms in eco system and impact created by microbes in agricultural development CO 1. Concepts related to Plant pathology CO 2. Soil microbiology and xenobiotics CO 3. Microbial waste treatment methods
Microbiology	**T.Y.BSc**	**Practical Course-I Applied Microbiology**	**MB-347**	The aim of this is to deliver practical knowledge and the implementation of the concepts studied. CO 1. Students will able to estimate fermentation product CO 2. Students will able to Do

				Isolation and Screening of pesticide Degrading bacteria and Lactic Acid CO 3. Students will able to Perform Quality Assurance Test for antibiotics CO 4. Students will able to Check quality of Milk CO 5. Students will able to perfom Dye Reduction Test and Biosynthesis of Nanoparticles
Microbiology	**T.Y.BSc**	**Practical Course-II Biochemistry And Molecular biology**	**MB-348**	The aim of this is to deliver practical knowledge and the implementation of the concepts studied. CO 1 Students will able to Estimate Clinical Biochemisrty Test for Blood fermentation product CO 2. Students will able to perfom Qalitative and Qantitative Biochemical Techniques CO 3. Students will able to Perform Isolation And Screening of Enzyme Producing Organism CO 4. Students will able to Isolate Bacteriophages , Bacterial Genomic DNA
Microbiology	**T.Y.BSc**	**Practical Course III Diagnostic**	**MB-349**	The aim of this is to deliver practical knowledge and the implementation of the concepts

		Microbiology And Immunology		studied. CO 1. Students will able to Perform Microscopic Examination of Clinical Samples CO 2. Students will able to Do Isolation and Identification of Clinical Pathogens CO 3. Students will able to Observe Permenant slides of Parasites CO 4. Students will able to do Epidermiological survey CO 5. Students will able to perform Immunohematology Tests

Short term Course

Name of the department	Class	Course Name	Course Outcome
Microbiology	**S.Y.B.Sc.**	**Certificate course in pharmaceuti cal techniques**	CO 1. To understand the needs of the Pharmaceutical industry. CO 2. Help the students to understand & implement the theoretical concepts in Pharmaceutical industry. CO 3.To develop the interest of students to work in Industry and take challenges.
	T.Y.B.Sc.	**Quality Manageme nt System & Food Safety Manageme nt System.**	CO 1.Students acquire information on Quality Audit CO 2.Process & become aware of types of Quality audits such as ISO 9000,ISO14000 etc. CO 3.Student get acquqinted with various stages in food safety. CO 4.Students can write case studies of food industries.

Department of Physics

Program specific outcomes

Name of the Department	Program specific outcome
Physics	**PSO1.**To provide knowledge of Physics From Nano Particle to Macro Particle through Qualitative and Quantative Analysis.. **PSO2**.To make the students aware of applications of different physics aspects .. **PSO3.**To highlights the potential of these studies to become an entrepreneur. **PSO4.** To equipped with skills related laboratory as well as field based studies. **PSO5.** To makes the students aware about conservation and sustainable use of energy **PSO6.** To create: an interest research field to national development. **PSO7.** To address the socio- economical challenges related to physical sciences **PSO8**.To facilitates students for taking up and shaping a successful career in Physics.

Course outcomes

Name of the Department	Class	Course Name	Course code	Course Outcome
Physics	**F.Y. B.Sc. SEM-I**	**Mechanics and Properties of Matter**	**PHY-111**	CO1. Demonstrate an understanding of Newton's laws and applying them in Calculations of the motion of simple systems. CO2. Understand the concepts of energy,

				work, power, the concepts of conservation of energy elasticity and be able to perform calculations using them. CO3. To Understand the Concept of Viscosity,Viscous Force, Equation of Continuity, Bernoulli's Principle. CO4. To understand the Concept of Surface Tension. CO5. To Learn the Properties of Matter like Stress and Strain. CO6.Demonstrate quantitative problem solving skills in all the topics covered.
		Physics Principles and Applications	**PHY-112**	CO1.To understand the general structure of atom. CO2.To understand the atomic excitation and LASER principles. CO3.To understand the bonding mechanism and its different types. CO4.To demonstrate an understanding of electromagnetic waves and its spectrum. CO5.To demonstrate quantitative problem solving skills in all the topics covered.
		Physics Practical	**PHY-113**	CO1.Acquire technical and manipulative skills in using laboratory equipment, tools, and materials. CO2.To understand the Different types of Measuring Instruments Like Vernier calliper and Micrometer Screwgauge. CO3. understanding of Physical Properties of Material Like Modulus of Rigidity and

				youngs Modulus. CO4.To Understand the Propertise of Laser like Divergence.
	F.Y.B.Sc SEM-II	**Heat and Thermodynamics**	**PHY 121**	CO1. To understand the Fundamentals of thermodynamics. CO2. To Learn the Heat transfer Mechanism and to understand the different types Heat engine. CO3.To understand the concept of heat and temperature to Study the Principle of thermometry. CO4..Demonstrate quantitative problem solving skills in all the topics covered.
		Electricity and Magnetism Course Code -	**PHY 122**	CO1.To understand the concept of the electric force, electric field and electric potential for stationary charges. CO2.Able to calculate electrostatic field and potential of charge distributions using Coulomb's law and Gauss's law. CO3.To understand the dielectric phenomenon and effect of electric field on dielectric. CO4.To Study magnetic field for steady currents using Biot-Savart and Ampere's Circuital laws. CO4.To study magnetic materials and its properties. CO5.Demonstrate quantitative problem solving skills in all the topics covered.

		Physics Practical	**PHY-123**	CO1.Acquire technical and manipulative skills in using laboratory equipment, tools, and materials. CO2. To understand P-V Diagram and theorotical Study of Carnots Cycle. CO3.To Understand Propertise Like thermal Conductivity, Specific Heat. CO4.To Study Charging Discharging of Capacitor and Kirchhoff's Laws. CO5. To Study Different Circuit like LR, LCR. CO6.to Study Characteristic of Diode.
	S.Y.B.Sc. SEM-I	**Mathematical Methods in Physics**	**PHY-231**	CO1.Understand the complex algebra. CO2.Understand the concept of partial differentiation. CO3.Understand vector algebra useful in mathematics and physics CO4.Understand the role of partial differential equations in physics.
		Electronics	**PHY-232**	CO1.Apply laws of electrical circuits to different circuits. CO2.Understand the relations in electricity CO3.Understand the properties and working of transistors. CO4.Design circuits using transistors and operational amplifiers.
		Physics Practical	**PHY-233**	CO1.Design experiments to test a hypothesis and/or determine the value of an unknown quantity. CO2.Investigate the theoretical background of

				an experiment. CO3.Setup experimental equipment to Implement an experimental approach. CO4.Analyze the data, plot appropriate graphs and reach conclusions from data analysis. CO5. Work in a group to plan, implement and report on a project/experiment. CO6. Keep a well-maintained and instructive laboratory logbook.
	S.Y.B.Sc. SEM-II	**Oscillations, Waves and Sound**	**PHY-241**	CO1.Understand the physics and mathematics of Oscillations. CO2.Solve the equations of motion for simple harmonic, damped, and forced oscillators. CO3.Explain oscillation in terms of energy exchange, giving various examples. CO4.Understand the mathematical Description of travelling and standing waves.
		Optics	**PHY-242**	CO1.Acquire the basic concepts of wave optics CO2.Describe how light can constructively and destructively interfere CO3.Understand optical phenomena such as polarization, birefringence, interference and diffraction in terms of the wave model. CO4.Analyze simple examples of interference and diffraction phenomena.
		Physics Practical	**PHY-243**	CO1.Use various instruments and equipment. CO2.Design experiments to test a hypothesis and/or determine the value of an unknown

				quantity. CO3.Set up experimental equipment to implement an experimental approach. CO4.Analyze data, plot appropriate graphs and reach conclusions from your data analysis.
	T.Y.B.Sc. SEM-I	**Mathematical Methods in Physics**	**91213**	CO1.The student should be able to solve problems within these topics and describe their significance in modern physics CO2.Be familiar with the main mathematical methods in physics.
		Solid State Physics	**91223**	CO1.Be familiar with the basic phenomena in solid state physics. CO2. Understand the models that describe these phenomena. CO3.Be able to make quantitative estimates for phenomena in solid state physics.
		Classical Mechanics	**91233**	CO1.Have a deep understanding of Newton's law. CO2.Be able to solve the Lagrangian& Hamiltonians equation.
		Atomic And Molecular Physics.	**91243**	CO1.Understanding of the Standard Model. CO2.Be able to make quantitative estimates of phenomena in elementary particle.
		Computational Physics.	**91253**	CO1.Identify modern programming methods. CO2.Independently program computers using leading-edge tools.

		Renewable Energy Sources	**912E3**	CO1.Describe the challenges and problems associated with the use of various energy sources. CO2.Know the need of renewable energy resources, historical and latest developments. CO3.Compare Solar, Wind and bioenergy systems, Their prospects, Advantages and limitations.
	T.Y.B.Sc. SEM-II	**Classical Electrodynamics**	**91214**	CO1.Understanding of the theoretical foundations of electromagnetic phenomena. CO2.Be able to solve the Maxwell equations for simple configurations.
		Quantum Mechanics	**91224**	CO1.Understand the effect of symmetries in quantum mechanics. CO2.Be able to solve the Schrödinger equation for simple configuration. CO3.Have a deep understanding of the mathematical foundations of quantum mechanics.
		Thermodynamics & Statistical Physics	**91234**	CO1.You can master basic statistical methods and concepts like probability, expected value variance. CO2.Has thorough knowledge on different Classical and quantum mechanical distribution functions.

		Nuclear Physics	**91244**	CO1.Demonstrate knowledge and understanding of Laws definitions concepts scientific vocabulary, Scientific quantities and their determination. CO2. Understand the fundamental principles and concepts governing classical nuclear physics.
		Electronics	**91254**	CO1.Analyse simple electronics circuits based on diodes and transistors with special focus on designing amplifiers with discrete components; CO2.Perform Analysis at AC of Amplifiers based on BJTs and FETs using weak signal models.
		Laser	**912K4**	CO1.Understanding the scientific and clinical principles of lasers in dentistry. CO2.Learn basic concepts of laser physics and segmentation of wavelengths. CO3.Become familiar with different types of laser used in dentistry. CO4.Understand the basic elements of the laser.
		PRACTICAL COURSE 1	**921274**	CO1.Work in a group to plan, implement and report on a experiment. CO2.Investigate the theoretical background to an experiment. CO3.Set up experimental equipment to implement an experimental approach. CO4.Demonstrate a deeper understanding of

				abstract concepts and theories gained by Experiencing and visualizing them as authentic phenomena.
		PRACTICAL COURSE 2	**91284**	CO1.Demonstrate a deeper understanding of abstract concepts and theories gained by experiencing and visualizing them as authentic phenomena. CO2.Acquire the complementary skills of collaborative learning and teamwork in laboratory settings CO3.Demonstrate an understanding of laboratory procedures including safety, and scientific methods. CO4. Demonstrate an ability to collect data through observation and/or experimentation and interpreting data.
		PRACTICAL COURSE 3	**91294**	CO1.Work in a group to plan, implement and report on a project/experiment CO2.Investigate the theoretical background to an project. CO3.Acquire the complementary skills of collaborative learning and teamwork in laboratory settings CO4.Acquire technical and manipulative skills in using laboratory equipment, tools.

Short Term Course
Course outcomes

Name of the Department	Class	Course Name	Course Outcome
Physics	S.Y.B.Sc. SEM-III and IV	Repairing of Domestic Electrical Home Appliances	**CO1.** Understand key element of electrical and electronics appliances. **CO2**. Understand key elements of RAC (AC and Refrigerators). **CO3**. Understand domestic wiring and layout **CO4**. Basic safety practices. Repair maintenance of the basic electrical and electronics appliances. **CO4**. Identification to protective devices **CO5**. Repair and maintenance of the split AC and Refrigerators. **CO6**. Able to do domestic wring and maintenance.
Physics	T.Y.B.Sc. SEM-V and VI	CCTV Camera Equipment Installation, & Maintenance	**CO1**.Recognize & comply safe working practices, environment regulation and housekeeping. **CO2**.Work in a team, understand and practice soft skills, technical English to communicate with required clarity. **CO3**. Understand and explain the concept in quality tools and labour welfare legislation and apply such in day to day work to improve productivity & quality. **CO4**. Explain energy conservation, global warming and pollution and contribute in day to day work by optimally

			using available resources. **CO5**. Understand and apply basic computer working, basic operating system and uses **CO6.** Internet services to get accustomed & take benefit of IT developments

Department of Botany

Program specific outcomes

Name of the Department	Program specific outcome
Botany	**PSO1.** Plant diversity such as algae, bryophytes, pteridophytes, gymnosperm and angiosperm which indicates the evolution of plants. **PSO2.** Environmental problems along with finding solutions. **PSO3.** Various aspects and disciplines of plant study such as plant anatomy, plant physiology, embryology, etc. **PSO4.** Different types of nutrition which are applied in growth of plants. **PSO5.** Characteristics of various plants to study identification classification and nomenclature under taxonomy and to know evolutionary relationship between different plant groups.

Course outcomes (Semester-wise)

Name of the Department	Class	Course Name	Course code	Course Outcome
Botany	**F.Y. B.Sc.**	**Botany I- Plant life**	**BO111**	**CO1** Student becomes aware about the plant diversity i.e. various plant groups such as

	(SEM I)	**and Utilization I**		Algae, Lichens, Fungi, Bryophytes, Pteridophytes, Gymnosperm and Angiosperms. **CO2** They understand the value of plant diversity by knowing the utilization of each plant group for human use as well as for maintenance of entire ecosystem and environment.
		Botany II- Plant morphology and anatomy	**BO112**	**CO1** Student gets the knowledge of different morphological characters of plants such as inflorescence, flower and its parts, fruits and seeds. **CO2** They know about how these morphological characters are useful in identification, nomenclature, classification, phylogeny and plant breeding **CO3** Student knows about the anatomical structure in plant system by studying different tissue systems in plants.
		Practical based on BO111 and BO112	**BO113**	**CO1** Student gets the Practical knowledge about different plant specimen by studying its morphological and anatomical characters.
	F.Y. B.Sc. (SEM II)	**Botany I- Plant life and Utilization II**	**BO121**	**CO1** Students understand the detailed morphological and anatomical studies with reference to pteridophytes, gymnosperms and angiosperms. **CO2** They realize the utilization and ecological importance of these plant groups.

		Botany II- Principles of plant science	**BO122**	**CO1** Student understands the concepts Plant physiology such as osmosis, diffusion, plasmolysis etc., plant cell structure and cell cycles in plants. **CO2** Student get knowledge about the structure of DNA and RNA its function and replication.
		Practical based on BO121 and BO122	**BO123**	**CO1** Student gets the Practical knowledge about different plant specimen by studying its morphological and anatomical characters. **CO2** The practicals of physiology make them aware about how the plant performs its metabolic activities. **CO3** Student realize about how DNA and RNA can be isolated and quantified.
Botany	**S.Y. B.Sc. (SEM I)**	**Botany I- Taxonomy of Angiosperm and plant community**	**81411**	**CO1** Students understand Plant descriptions, description of morphological and reproductive characters of plants and also identification and classification and nomenclature of plant families of Angiosperm. **CO2** A herbarium technique gives knowledge for identification of plants. **CO3** Students understand environmental basic concept of ecology and know about plant adaptation according to different ecological conditions such as xerophytes, halophytes, mesophytes and succulents.
		Botany II- Plant physiology	**81421**	**CO1** Students get knowledge of basic concepts in plant physiology such as plant water relation, osmosis, imbibition, water absorption, and

				ascent of sap, seed technology, nitrogen metabolism physiology of flowering and plant growth regulators and vernalization.
	S.Y. B.Sc. (SEM II)	**Botany I- Plant anatomy and embryology**	**81412**	**CO1** Student realizes the anatomical structure of angiosperm with respect to Epidermal tissue system, Mechanical tissue system, Vascular tissue system, Normal secondary growth, Anomalous secondary growth. **CO2** They understand basic knowledge of embryo and embryo development and types of embryo.
		Botany II- Plant Biotechnology	**81422**	**CO1** Students know about types of enzymes and enzyme immobilization, production of single cell protein and its economic implications. **CO2** They aware about methods of phytoremediations, rhizofilteration, phytoextraction, etc. **CO3** Students understand basics of gene transfer in plants, its application in crop improvement and Nano-biotechnology.
		Botany III- Practical	**81432**	**CO1** Student gets the Practical knowledge about how to describe plant families and their economic importance. **CO2** The practicals of physiology make them aware about how the plant performs its metabolic activities. **CO3** Student understands the mechanical tissue system , normal and anomalous secondary growth , embryonic development in plant system **CO4** Student get knowledge about how fermentation products are formed and DNA isolation with agarose gel electrophoresis.

Short Term Course Outcomes:

Name of the Department	Class	Course Name	Course Outcome
Botany	**F.Y. B.SC. and S.Y. B.Sc.**	**Certificate course in Herbal cosmetics (Basic)**	**CO1** Students Understand the basic techniques for standardization of extracts and their screening methods of herbs. **CO2** They able to Demonstrate and analyse the preparation of herbal soap, hair oil, face pack, hair conditioner, moisturiser and herbal hair dye **CO3** Student aware about different skin types and its relation to different face pack. **CO4** Exhibit and demonstrate the basic communication skills for marketing of products

Department of Zoology
Program specific outcomes

Name of the Department	Program specific outcome
ZOOLOGY	**Students leaning Zoology for B.Sc. PSO is,** **PSO1**: Students will be able to present scientific hypothesis and data, orally and in writing in the formals that are used by practicing scientists. **PSO2**: Students will be able to apply the scientific method to question in zoology by formulating testable hypothesis. **PSO3**: Students will be able to access the primary literature, identify relevant works for a particular topic and evaluate the scientific content of this work. **PSO4**: Students should be able to apply fundamental mathematical tools (Statistics and Calculus) and physical principles (Physics and chemistry) to the analysis of relevant biological situations. **PSO5**: Students should be able to identify, compare and contrast the characteristics of animals to differentiate them from other life forms. **PSO6**: Students should be able to use comparative anatomy to study evolution **PSO7**: Students should be able to explain gene, genome, cell biology, tissue, organs and systems. **PSO8:** Students also able to explain physiological and developmental aspects of organism. **PSO9**: Students are able to explicate the ecological interconnections of the life on the earth by tracing energy and nutrient flow through the environment. **PSO10**: Students will be able to demonstrate proficiency in the

	experimental techniques and methods of analysis appropriate for their area of specialization within biology. **PSO11**: Students will be able to apply Zoology to day to day life and enhance life & business.

Course outcomes (Semester-wise)

Name of the Department	Class	Course Name	Course code	Course Outcome
Zoology	**F.Y. B.Sc. Sem I**	**Animal Diversity I**	**ZO - 111**	CO 1: To remember & understand the basics of animal classification. CO 2: To analyse the characters critically and classify them CO 3: To apply classification of animals in day today life to the invertebrate forms we observe up to phylum & class. CO 4: To examine the characters and verify the additional features related to animal classification. CO5: To create culturing mechanisms and nurture some invertebrates in laboratory conditions and observe their lifestyle.
		Animal Ecology	**ZO -112**	CO 1: To recollect and implement the basics of ecology in each unit. CO 2: To scrutinize concepts in ecology and peruse them with examples. CO 3: To analyse the said laws of nature with a thought about humans CO 4: To explore the joy of learning in environment and apply the logic of class to living systems. CO5: To construct the models of ecosystem and other aspects to apply it to nature. CO 6: To formulate an ecosystem in class room with all possible information.
	F.Y. B.Sc. Sem II	**Animal Diversity**	**ZO-121**	CO 1: To remember & understand the basics of animal classification. CO 2: To analyse the characters critically and classify them. CO 3: To apply classification of animals in

		II		day today life to the invertebrate forms we observe up to phylum & class. CO 4: To examine the characters and verify the additional features related to animal classification. CO5: To create culturing mechanisms and nurture some invertebrates in laboratory conditions and observe their lifestyle.
		Cell Biology	**ZO-122**	CO1: To recollect and understand the basics of cell. CO2: To relate the techniques to cell to understand the cell better CO 3: To solve cell biology problems using the formulae and techniques. C0 4: To compare the cellular size shape number with its functioning. CO5: To appraise the cellular functioning to its position and structure CO 6: To create a virtual cell model and understand its functioning
	S. Y. B.Sc. Sem I	**Animal Diversity III**	**ZO - 231**	CO1: To remember & understand the basics of animal classification. CO2: To analyse the characters critically and classify them CO3: To apply classification of animals in day today life to the vertebrate forms we observe up to phylum & class. CO4: To examine the characters and verify the additional features related to animal classification. CO5: To create culturing mechanisms and nurture some vertebrates in laboratory conditions and observe their lifestyle. CO6: To type study an example with hands on experience
		Applied Zoology	**ZO - 232**	**CO1**: Useful and harmful insects and their impact on human life stock. **CO2**: To Apply the knowledge of culturing the sericulture worms for a profitable use. **CO 3**: To analyse the silk worm varieties and the silk obtained from them. **CO 4**. To create entrepreneurs who can handle agro businesses and successfully create profitable businesses.

				CO-5. To control unwanted animals by understanding their life cycles, stages and control points for agro based profitability. **CO -6**. Use Of Technology For Business Prospering
	S. Y. B.Sc. Sem II	**Animal Diversity IV**	**ZO – 241**	**CO1**: To remember & understand the basics of animal classification. **CO2**: To analyse the characters critically and classify them **CO3:** To apply classification of animals in day today life to the vertebrate forms we observe up to phylum & class. **CO4:** To examine the characters and verify the additional features related to animal classification. **CO5**: To create culturing mechanisms and nurture some vertebrates in laboratory conditions and observe their lifestyle. CO6: To type study an example with hands on experience
		Applied Zoology II	**ZO - 242**	CO-1 honey bees and their impact on human life stock. CO-2:to Apply the knowledge of culturing the honey bees for a profitable use by knowledge of their biology. CO 3. to create entrepreneurs who can handle agro businesses and successfully create profitable businesses. CO-4. To promote fisheries as an entrepreneurial business. CO-5. Linking various aspects of human life with these businesses for popularizing applied zoology CO -6. Use Of Technology For Business Prospering

Short Term Course Outcomes:

Name of the Department	Class	Course Name	Course Outcome
Zoology	**FY BSc**	**Aquarium maintenance**	CO1. To understand the basics of Aquarium maintenance and it's important. CO2. To understand Aquarium management of various fish species. CO3. To understand types of Aquarium and accessories required for it. CO4. To understand food, feeding to aquarium fishes. CO5. To understand the fish diseases and their control. CO6. The students will be able to understand market value of Aquarium practices.

Department of Mathematics
Program specific outcomes

Name of the Department	Program specific outcome
Mathematics (F.Y.B.Sc &S.Y.B.Sc)	**PSO1)** Think in a critical manner. **PSO2)** 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. **PSO3)** Formulate and develop mathematical arguments in a logical manner. **PSO4)** Acquire good knowledge and understanding in advanced areas of mathematics and statistics, chosen by the student from the given courses. **PSO5)** Understand, formulate and use quantitative models arising in social science, business and other contexts.

Course outcomes (Semester-wise)

Name of the Department	Class	Course Name	Course code	Course Outcome
Mathematics	**F.Y.B.Sc.**	**Algebra (Semester-I)**	**MT-111**	**CO1)** Student will be able to apply basic concept of sets, relations, functions, type of functions. **CO2)** Student will be able to solve various problems on properties of integers and use the basic concepts of divisibility, congruence and their applications in basic algebra. **CO3)** Student will be able to apply basic properties of complex number, De- Moivre's theorem, region in complex plane.
Mathematics	**F.Y.B.Sc.**	**Calculus -I (Semester-I)**	**MT-112**	**CO1)** Gain Knowledge of fundamental concepts of real numbers. **CO2)** Verify the value of the limit of a function at a point using the definition of the limit **CO3)** Introduction to sequence and series. **CO4)** Learn to check function is continuous, understand the consequences of the intermediate value theorem for continuous functions.

Mathematics	**F.Y.B.Sc.**	**Practical Course based on MT-111 and MT-112 (Semester-I)**	**MT-113**	**CO1)** Learn Maxima software. **CO2)** Problem solves on algebra and calculus by using maxima software. **CO3)** Knowledge of application of mathematics
Mathematics	**F.Y.B.Sc.**	**Analytical Geometry (Semester-II)**	**MT- 121**	**CO1)** Introduction to analytical geometry of 2 dimensional. **CO2)** Study of planes and lines in 2 and 3 dimensions. **CO3)** Student will be to finding equation in various form of the sphere, equation of plane section of a sphere, equation of a circle, sphere through given circle and equation of tangent plane to sphere.
Mathematics	**F.Y.B.Sc.**	**Calculus- II (Semester-II)**	**MT-122**	**CO1)** Student will be to understand differentiation, fundamental theorem in differentiation and various rules. **CO2)** Student will be to understand geometrical representation and problem solving on MVT **CO3)** Student will be to identify and apply the intermediate value theorem, Mean value theorem and Hospital's rule. **CO4)** Student will be to identify

				types of differential equations and solve differential equations such as Exact, homogeneous, non-homogeneous, and linear and Bernoulli differential equations etc.
Mathematics	**F.Y.B.Sc.**	**Practical Course based on MT-121 and MT-122 (Semester-II)**	**MT-123**	**CO1)** Learn Maxima software. **CO2)** Problem solves on analytic geometry and calculus by using maxima software. **CO3)** Problem solving on geometry and calculus.
Mathematics	**S.Y.B.Sc.**	**Multivariable Calculus I (Semester-I)**	**MT-211**	**CO1)** Students will able to learn analysis of multivariable functions, limit, continuity, partial derivatives and differentiability. **CO2)** Students will able to learn the concepts of multiple integrals and their application to area and volumes
Mathematics	**S.Y.B.Sc.**	**Laplace Transform and Fourier Series (Semester-I)**	**MT-212(B)**	**CO1)** Students will able to learn the methods and properties of Laplace transform and Inverse Laplace transform; apply them to solve Linear Differential equations. **CO2)** Students will able to apply the fundamental concepts of Fourier series, Fourier Sine series, Fourier Cosine series to find series representation of irrational numbers.

Mathematics	**S.Y.B.Sc.**	**Mathematics Practical based on MT211 and MT212 (Semester-I)**	**MT-213**	**CO1)** Problem solving on multivariable calculus and Laplace transform, Fourier series **CO2)** Learn to build logical concept.
Mathematics	**S.Y.B.Sc.**	**Linear Algebra (Semester-II)**	**MT-221**	**CO1)** Students will able to use the concept of basis and dimension of vector spaces linear dependence and linear independence, to solve problems. **CO2)** Students will able to use the concept of inner product spaces to find norm of vectors, distance between vectors, and check the orthogonality of vectors, to find the orthogonal and orthonormal basis. **CO3)** Students will able to apply the properties of linear transformations to linearity of transformations, kernel and rank of linear transformations, inverse transformations to solve the problems of matrix transformations, change of basis.
Mathematics	**S.Y.B.Sc.**	**Numerical Analysis (Semester-II)**	**MT-212(B)**	**CO1)** Students will able to round-off given number calculate absolute, relative and percentage error. **CO2)** Students will able to solve

				the algebraic and transcendental equations by Numerical Methods **CO3)** Students will able to use the least square curve fitting procedure to fit straight line and non-linear curves **CO4)** Students will able to use the finite difference operators, interpolation formulae. **CO5)** Students will able to use the concept of numerical integration. **CO6)** Students will able to solve the first order ordinary differential equations by Numerical Methods.
Mathematics	**S.Y.B.Sc.**	**Mathematics Practical based on MT-221 and MT-222 (Semester-II)**	**MT-223**	**CO1)** To demonstrate used of interpolation method in numerical analysis. **CO2)** Use computational techniques and algebraic skills essential for the study of systems of linear equations, matrix algebra, vector spaces, eigenvalues and eigenvectors, orthogonality and diagonalization.

Department of Statistics

Program specific outcomes

Name of the Department	Program specific outcome
Statistics	**PSO1.**To provide knowledge of Statistics, Qualitative and Quantative data Analysis,various statistical distributions. **PSO2**.To make the students aware of applications of different statistical aspects. **PSO3.**To highlights the potential of these studies to become an entrepreneur. **PSO4.**To equipped with skills related to theorotical as well as practical based studies. **PSO5.**To inform students about how Statistics is used in real life. **PSO6.**To create: an interest research field to national development.. **PSO7.**To facilitates students for taking up and shaping a successful career in Statistics.

Course outcomes

Name of the Department	Class	Course Name	Course code	Course Outcome
Statistics	**F.Y.B.Sc. SEM-I**	**Descriptive Statistics I**	**ST-111**	After completing this course student will be able to **CO1)** Define- Mathematical Averages (AM,GM,HM) , Positional Averages (Median, Mode Partition values), Absolute (Range, Q.D., M.D., S.D. and

				Relative measures of dispersion, Moments Skewness and Kurtosis, Characteristics of Attributes. **CO2)** Explain- Constructions of Diagrams and Graphs , Mathematical Averages and Positional Averages, Absolute and Relative measures of dispersion, Moments Skewness and Kurtosis, Characteristics of Attributes. **CO3)** Write- Relation between AM ,GM, HM,Derivation of Median and Mode, Properties of Measures of central tendency and dispersion, First four raw and central moments, measures of Skewness and Kurtosis, concept of consistency in attributes, Yules coefficient of association, coefficient of colligation and relation between them.
		Discrete Probability and Probability distributions -I	**ST-112**	After completing the course, students will able to- **CO1)** Define- Sample space (Finite and countable infinite), Power set, Axiomatic definition of probability, Probability Mass function (pmf), Cumulative distribution function (cdf),Mathematical expectation,Binomial distribution,Hypergeometric distribution. **CO2)** Explain- Random experiment, events and types of events, Conditional

				Probability and Independence of events. **CO3)** Write- Examples on sample space, simple examples on probability based on permutation and combination, Theorems on probability, Properties of cdf.
		Statistics Practical	**ST-113**	**CO1.** Diagramatic representation of data,Histogram,Frequency polygon,ogive curves. **CO2.** Use of MS-Excel to draw random numbers and sampling **CO3.** Data interpretation from various graphs and diagrammes. **CO4.** Computation of measures of central tendency and dispersion **CO5.** Measures of skewness,kurtosis and box plot **CO6.** Computation of summary statistics using MS-Excel
	F.Y.B.Sc SEM-II	**Descriptive Statistic II**	**ST-121**	After completing the course, students will able to- **CO1)** Define- Types of correlation, fitting of line of Regression, Coefficient of Determination, Residual, and Unweighted and Weighted index numbers. **CO2)** Explain- Bivariate data, Correlation, Regression, Multiple and Partial correlation, Multiple Regression, Index Number, Types of Index Number.

				CO3) Write- Interpretation of r if r=1,r= -1, r= 0, Properties of correlation coefficient, Derivation of the formula for Spearman's rank correlation coefficient, Fitting of regression plan by method of least square, Properties of Multiple and Partial correlation coefficient, Price , Quantity and Value index number
		Discrete Probability and Probability distributions -II	**ST-122**	After completing the course, students will able to- **CO1)** Define- Random Variable**,** Expectation of random variable , Mean, Variance, Raw and central moments based on expectation of random variable, Poisson distribution, Geometric Distribution, Bivariate discrete random variable. **CO2)** Explain- Results on expectation of random variable, Mean and variance by using pgf. **CO3)** Write- Properties of pgf, Probability mass function-Mean-Variance-moments- cdf for standard discrete probability distribution, Recurrence relation, concept of marginal and conditional probability, Theorems on expectation, conditional mean and conditional variance.
		Statistics Practical	**ST-123**	**CO1.** Scatter Diagram,Correalation coefficient,Fitting of line of regression.

				CO2. Fitting of second degree curve,exponential curve. **CO3.** Fitting of Binomial distribution. **CO4.** Fitting of Poisson distribution **CO5.** Applications of Binomial, Poisson, geometric distributions **CO6.** Index numbers **CO7.** Scatter Diagram, Correalation coefficient, Fitting of line of regression, Fitting of second degree curve, exponential curve using MS-Excel
	S.Y.B.Sc. SEM-I	**Discrete Probability Distribution and Time Series**	**ST-231**	After completing the course, students will able to- **CO1.** Learn Negative Binomial Distribution, Multinomial Distribution, Truncated Distribution, with their Mean, Variance .moments and other properties**.** **CO2.** Learn the Meaning and need of time series analysis. Do Measurement of trend
		Continuous Probability Distribution	**ST-232**	After completing the course, students will able to- **CO1.** Understand concept of continuous distributions with real life situations **CO2.** Learn Uniform, Exponential, NormaL distribution. **CO3.** Compute mean, mode, variance, moments, cumulants for all Distributions **CO4.** Learn properties of each specified

				distribution
		Statistics Practical	**ST-233**	**CO1.** Fitting of Negative Binomial distribution. **CO2.** Fitting of Normal distribution. **CO3.** Model sampling from exponential distribution Implement an experimental approach. **CO4.**Time series-Estimation and forecasting of trend by exponential smoothing, moving averages, plotting of residuals, Fitting of AR model **CO5.**Estimation of trend, seasonality **CO6.** Fitting of Negative Binomial distribution, Fitting of Normal distribution using MS-Excel
	S.Y.B.Sc. SEM-II	**Statistical Methods and use of R-Software**	**ST-241**	After completing this course student will be able to **CO1** Learn basic concepts of multiple linear Regression Model **CO2** Learn Testing of Hypothesis **CO3** Understand Large Sample Tests **CO4**Understand the need of vital statistics and concept of mortality and fertility **CO5** Solve examples on Demography **CO6** Understand Queueing Models and Solve examples.
		Sampling distribution	**ST-242**	After completing this course student will be able to

		And inference		**CO1** Learn Exact Sampling Distributions **CO2** Understand Chi-Square distribution, Student's t- distribution, Snedecores F distribution **CO3** Know the relations among the different distributions **CO4** Learn Testing of Hypothesis **CO5** Understand Large Sample Tests **CO6** Learn Testing of Hypothesis **CO7** Understand Small Sample (Exact) Tests
		Statistics Practical	**ST-243**	**CO1** Test for means & construction of confidence interval **CO2** Test for proportions & construction of confidence interval **CO3** Test based on chi square distribution i) Goodness of fit ii) Independence of attributes iii) Mc Neamar's test **CO4** Test for means & construction of confidence interval using MS-Excel **CO5** Tests using R-software

DEPARTMENT OF CHEMISTRY

Program Outcome

Name of the Program	Program outcome
B.Sc.	**PO1**. At the Completion of B. Sc. in Chemistry the Students: **PO2**. Provide a broad foundation in chemistry that stresses scientific reasoning and Analytical problem solving with a molecular perspective. **PO3**. Achieve the skills required to succeed in graduate school, the chemical industry and professional school. **PO4**. Get exposures of a breadth of experimental techniques using modern instrumentation **PO5.** Understand the importance of the Periodic Table of the Elements, how it came to be, and its role in organizing chemical information. **PO6**. Understand the interdisciplinary nature of chemistry and to integrate knowledge of mathematics, physics and other disciplines to a wide variety of chemical problems. **PO7**.Learn the laboratory skills needed to design, safely and interpret chemical research. **PO8.**Acquire a foundation of chemistry of sufficient breadth and the depth to enable them to understand and critically interpret the primary chemical literature. **PO9**. Develop the ability to communicate scientific information and research results in written and oral formats. **PO10**. Learn professionalism, including the ability to work in teams and apply basic
M.Sc.	This two year programme offers the opportunity to study chemistry at an advanced level,covering both the traditional core areas of chemistry as well as more specialist courses aligned to the research groupings of the department. The course provides opportunity for students to develop and demonstrate advanced knowledge understanding and practical / research skill.

Program Specific Outcomes:

Name of the Department	Program Specific Outcomes
Department of Chemistry	**B.Sc. Course :** On the completion of B.Sc. Chemistry the students: **PSO 1**:- Understand the scope, methodology and application of modem chemistry **P SO 2**:- Study theoretical and practical concepts of instruments that are commonly used in most chemistry field. **PSO 3:-** Plan and conduct scientific experiments and record the results of such experiments. **PSO 4:-** Get acquaint with safety of chemicals, transfer, and measurement of chemicals, preparation of solutions, and using physical properties to identity compounds and chemical reactions. **PSO 5:-** Describe how chemistry is useful to solve social, economic and environmental problem and issues facing our society in energy, medicine and health
	M.Sc. Course Programme specific outcomes:- A Student **PO1:** Gains complete knowledge about all fundamental aspects of all the elements of chemistry **PO2**: understands the background of organic reaction mechanisms, complex chemical structures,Instrumental method of chemical analysis, molecular rearrangements and separationtechniques. **PO3:** Appreciates the importance of various elements present in the periodic table, coordination chemistry and structure of molecules, properties of compounds, structural determination of complexes

	using theories and instruments. **PO4:** Gathers attention about the physical aspects of atomic structure, dual behaviour, reaction pathways with respect to time, various energy transformations, molecular assembly in nanolevel, significance of electrochemistry, molecular segregation using their symmetry. **PO5:** Learns about the potential uses of analytical industrial chemistry, medicinal chemistry and green chemistry. **PO6:** Carry out experiments in the area of organic analysis, estimation, separation, derivative process, inorganic semi micro analysis, preparation, conductometric and potentiometer

Course outcome: (Semester-wise):

Name of the department	Class	Course name	Course code	Course outcome
Department of Chemistry	**F.Y.B.Sc.**	**Physical Chemistry**	**CH 101**	**Course Outcomes** CO1. The students are expected to understand the fundamentals, principles, and recent developments in the subject area. CO2. It is expected to inspire and boost interest of the students towards chemistry as the main subject. CO3. To familiarize with current and recent developments in Chemistry. CO4. To create foundation for research and development in Chemistry CO5 .Importance of chemical safety

				and Lab safety while performing experiments in laboratory CO6 .Determination of thermochemical parameters and related concepts CO7. Techniques of pH measurements CO 8. Preparation of buffer solutions CO9. Elemental analysis of organic compounds (non instrumental) CO10. Chromatographic Techniques for separation of constituents of mixtures
	F.Y.B.Sc	**Inorganic Chemistry**	**CH 201**	**Course Outcome** CO1. Inorganic Estimations using volumetric analysis CO2. Synthesis of Inorganic compounds CO3. Analysis of commercial products CO4. Purification of organic compounds CO5. Preparations and mechanism of reactions involved

		Physical Chemistry **Organic Chemistry** **Organic Chemistry** **Inorganic Chemistry**	**CH- 101:** **CH- 102:** **Theory: CH 201:** **CH- 201:** **CH-202:** **Lab Course** CH 103 and CH-	**Course Outcomes Practicals** CO1 After completing the course work learner will be acquired with knowledge of chemical energetics,Chemical equilibrium and ionic equilibria. CO2 Will learn Fundamentals of organic chemistry, stereochemistry (Conformations, configurations and nomenclatures) and functional group approach for aliphatic hydrocarbons CO3 Will learn Fundamentals of organic chemistry, stereochemistry (Conformations, configurations and nomenclatures) and functional group approach for aliphatic hydrocarbons CO4Students will learn quantum mechanical approach to atomic structure, Periodicity of elements, various theories for chemical bonding and calculations used in analytical chemistry CO1 Students will learn Functional group approach for the various reactions (preparations & reactions) incontext to their structure

		Organic Chemistry	203	CO2 . The practical course is in relevance to the theory courses to improve the Understanding of the concepts. CO3 . It would help in development of practical skills of the students. CO4 . Use of microscale techniques wherever required
	S.Y.B.Sc.	**Physical Chemistry**	**CH-301**	CO1 Concept of kinetics , terms used , rate laws , types of order. CO2 Factors affecting on rate of reaction. photochemistry CO3 Understand difference between thermal and photochemical reactions CO4 Understand laws of photochemistry. CO5 Learn what is quantum yield and it's measurement CO6 Concept of distribution of solute amongst pair of immiscible solvents ii. Distribution law and it's thermodynamic proof.
		Inorganic and Organic Chemistry	**CH-302**	CO1 Identify chiral center in the given organic compounds. CO2 Define Erythro, threo, meso, diasteroisomers with suitable examples. CO3 Able to find R/S configuration

				in compounds containing two chiral centers. CO4 Explain Bayer's strain theory, Heat of combustion and relates stability of cycloalkanes. C05 Explain the stability of cyclohexanes. CO6 Draw the structure of boat and chair configuration of cyclohexane. CO7 Draw axial and equatorial bonds in cyclohexane. CO8 Explain the stability of axial and equatorial conformation of monosubstituted
				CO1 A student should be able – CO2 To differentiate between ore and minerals. CO3 To differentiate between calcination and roasting and smelting. CO4 To know physico-chemical principles involved in electrometallurgy. CO5 To understand electrolysis of alumina and its refining. CO6 To explain the uses of Aluminum and its alloys. CO7 To know different reactions in the blast furnace.

		Physical and Analytical Chemistry	**CH-401**	CO1 Meaning of equivalent weight, molecular weight, normality, molality, primary and CO2 secondary standards. CO3 Different way to express concentrations of the solution. CO5 Preparation of standard solution. CO6 To solve numerical problems. CO7 Calibrate various apparatus such as burette, pipette, volumetric flask, barrel pipette etc. CO8 Types instrumental and non instrumental analysisi. Explain role of indicators. CO9 Know mixed and universal indicators. CO10 Know neutralization curves for various acid base titration CO11 Know principle of complexometric precipitation and redox titrations. CO12 Know the definitions and difference between iodometry and iodimetry. CO13 To know standardization of sodium thiosulphate and EDTA. CO14 Reactions between $CuSO_4$ and Iodine and liberated I_2 and $Na_2S_2O_3$.

	T.Y.B.Sc.	**Physical Chemistry**	**CH-501 Sem I**	After studying this topic students are expected to known. CO1. Understand and explain the differences between classical and quantum mechanics. CO2. Understand the idea of wave function CO3. Understanding of De Broglie hypothesis and the uncertainty principle CO4. Understand the term additive and constitutive properties. CO5. Understand the term specific volume, molar volume and molar refraction.
			CH-601 Sem II	CO1. Understand the meaning of electrical polarization of molecule, induced and orientation polarization. CO2.Electrochemical cells: Explanation of Daniell cell, Conventions to represent electrochemical cells CO3. Thermodynamic conditions of reversible cell, Explanations of reversible and irreversible electrochemical cell with suitable example, CO4. EMF of electrochemical cell and its measurement.
		Inorganic Chemistry	**CH-504 Sem I**	**CO1**. To know position of d-block elements in periodic table. **CO2**. The meaning of term f-block

			CH-604 Sem II	elements, Inner transition elements, lanthanides, actinides. **CO3**. The meaning of metal & semiconductor. **CO4.** The difference between metal, semiconductor and insulator. **CO5**. Metallic bond on the basis of band theory. **CO6**. Explain the electrical conductivity of metals with respect to valence electrons. **CO7.** To understand M-C bond and to define organometallic compounds. **CO8.** To define organometallic chemistry ii 9. To understand the multiple bonding due to CO ligand. **CO10**. Understand the phenomenon of catalysis, its basic principles and terminologies. **CO11**. Define and differentiate homogeneous and heterogeneous catalysis.
		Organic Chemistry	**CH-507 Sem I**	CO1. Define and classify polynuclear and hetreonuclear aromatic hydrocarbons. CO2. Write the structure, synthesis of polynuclear and hetreonuclear aromatic hydrocarbons. CO3. Meaning of active methylene group . 4. Reactivity of methylene

			CH-607 Sem II	group, CO5. What is rearrangement reaction. CO6. Different types of intermediate in rearrangement reactions. CO7. Students will learn the principle of mass spectroscopy, its instrumentation and nature of mass spectrum. CO 8. Students will understand the principle of UV spectroscopy and the nature of UV spectrum. They will learn types of electronic excitations. CO9. Students will understand the principle of IR spectroscopy, types of vibrations and the nature of IR spectrum.
		Analytical Chemistry	**CH-502**	CO1. Define basic terms in gravimetry, spectrophotometry, qualitative analysis and parameters in instrumental analysis. CO2. Explain different principles involved in the gravimetry, spectrophotometry, parameters in instrumental analysis, qualitative analysis. CO3. Design analytical procedure for given sample. CO4. Perform quantitative calculations depending upon equations student has studied in the

				theory. Furthermore, student should able to solve problems on the basis of theory. CO5. Define basic terms in solvent extraction, basics of chromatography, HPLC, GC, and AAS and AES CO6. Explain different principles involved in the analyses using solvent extraction,
		Industrial Chemistry	**CH-505**	CO1. Importance of chemical industry, CO2. Knowledge of various industrial aspects. CO3. Concept of basic chemicals, CO4. Their uses and manufacturing process. CO5. Importance of sugar industry. CO6. Fermentation Industry i. Basic requirement of fermentation process, ii. Manufacturing of ethyl alcohol by using molasses and fruit juice. Different types of soap products, iii. Chemistry of soap. iv. Raw materials required for soap manufacture v. Meaning of the term's Surfactants, vi. Types of surfactants

		Introduction to Medicinal Chemistry **Environme**	**CH-509** **CH-609** **<u>CH -511A</u>**	The students are expected to learn the following aspects of Chemistry CO1. The basics of medicinal chemistry, biophysical properties, overview of basic concepts of traditional systems of medicine. CO2. Over view of the overall process of drug discovery, and the role played by medicinal chemistry in this process. CO3. Biological activity parameters and importance of stereochemistry of drugs and receptors. CO4. Knowledge of mechanism of action of drugs belonging to the classes of infectious and non-infectious diseases. CO5. Enhancement of practical skills in synthesis, purification and analysis The students are expected to learn the following aspects of Chemistry. i. Importance and conservation of environment. ii. Importance of biogeochemical cycles ii. . Water resources Hydrological Cycle iii. Organic and inorganic pollutants.

		ntal Chemistry **Organic Chemistry-I** **Inorganic Chemistry-I**	**CH-509** **CH-609** **CH-506** **CH-606**	iv. Water quality parameters **Course Outcomes** **Practical** CSO-1 Learns the fundamentals of reaction mechanisms CSO-2 Understands the mechanism of nucleophilic substitution and elimination reactions CSO-3 Appreciates the fundamentals of aromaticity in organic chemistry CSO-4 Acquires the 3-D aspects of organic molecules. CSO-5 Gains the potential about complex vitamin and nucleic acid structure CSO-1 Understands the background of bonding forces CSO-2 Appreciates the importance of various theories in bonding CSO-3 Learns the chemistry basis of solid state CSO-4 Gains the imagination of 3D structures of silicates and caged compounds CSO-5 Estimates the importance of extractive metallurgy CSO-1 Understands the various theories of electrolytic conductance CSO-2 Recognizes the dynamics of

		Physical Chemistry - I	**CH-503 CH-603**	electrode reaction CSO-3 Learns the classical status of thermodynamics CSO-4 Appreciates the fundamentals of molecular thermodynamics CSO-5 Estimates the basis of chemical surfaces Instrumental method of analysis
	M.Sc.:	**Organic Chemistry**		• **Course Outcomes COs):** CO1. Student should visualize/ imagine molecules in 3 dimensions. CO2. To understand the concept of symmetry and able to pass various symmetry elements through the molecule. CO3. Understand the concept and point group and apply it to molecules. CO4. To understand product of symmetry operations. CO5. To apply the concept of point group for determining optical activity and dipole moment. CO6. Student should understand the importance of Orthogonality Theorem. CO7. They should able to learn the rules for constructing character table. CO8. Using reduction formulae should

				be able to find out the possible type of hybridization. CO9. Student should know the concept of SALC. CO10.Student able to find out character for reducible representation. CO11. To know about projection operator. CO12. Apply projection operator to find out the normalized wave function for atomic orbital. CO13. Student should correlate the application of symmetry to spectroscopy. CO14. Students able to find out the possible modes of vibration. CO15. From the previous knowledge of symmetry student must able to find out which mode are IR active. **Learning outcomes:** 1. Student should understand the detail chemistry of S and P block elements w.r.t. their compounds, their reactions and applications. 2. To learn the advance chemistry of boranes, fullerene, zeolites, polymers etc.

				3. Organometallic chemistry of some important elements from the main groups and their Applications **Learning outcomes:** 1. Student should able to find out the no of microstates and meaningful term symbols, construction of microstate table for various configuration 2. Hund's rules for arranging the terms according to energy. 3. Student should understand interelectronic repulsion. 4. Student should know the concept of weak and strong ligand field. 5. Student able to find out splitting of the free ion terms in weak ligand field and strong ligand field. 6. To draw correlations diagram for various configurations in Td an Oh ligand field. 7. Student should know basic instrumentation and selection rules and relaxation in rules. 8. Student should know basic d-d transition, d-p mixing, charge transfer spectra.

				9. Interpretation of electronic spectra for spin allowed oh and td complexes using Orgel diagram. 10. Understand the concept of spectrochemical series and Nephelauxetic series. 11. Should able to solve numerical based on crystal field parameters. 12. Understand the various terms involved in magnetochemistry. 13. Various phenomenons of magnetism and their temperature dependence. 14. Various experimental methods to find out magnetic moment. 15. Understand the various Quenching of orbital angular momentum. **Learning outcomes:** 1) Importance of bioinorganic chemistry. 2) Role of metals in Metalloprotein and metalloenzymes. 3) Similarities in coordination theory for metal complexes and metal ions complexed with biological ligands. 4) Importance and transport of metal

				ions. 5) Passive transport metal ions by ionophores and gramicidin. 6) Mechanism for active transport of Na+and K+ 7) Nerve impulse generation in rod cell of retina. 8) Importance and function of Ca, Fe and Mg in metalloprotein 9) Catalytic role of Mn in photosynthesis. **Learning outcomes:** 1. To understand some fundamental aspects of organic chemistry, to learn the conceptaromaticity, to understand the various types of aromaticity 2. To study heterocyclic compound containing one and two hetero atoms with their structure,synthesis and reactions. 3. To know stereochemistry of organic compounds; able to do interconversion of Fischer toNewmann, Newmann to Sawhorse and vice versa, Able to assign R and S to given molecules; Understand stereoselective and stereospecific reactions; acquire knowledge ontopicity. 4. To study structure, formation,

				stability and related name reaction of intermediates like Carbocation, Carbanion, Free Radical, Carbenes and nitrenes; Recognize neighboring group participation 5. To study rearrangement reaction with specific mechanism and migratory aptitude of different groups. 6. To study Ylides and their reaction. 7. To understands the basis of redox reaction; acquire knowledge about the reagents which causes selective oxidation / reduction in various compounds; learn the basic mechanism of oxidation / reduction in organic compounds. **Students will be able to understand –** 1. MOT and will be able to extend this in predicting reaction mechanism andstereochemistry of electrocyclic reactions 2. The concepts in free radical reactions, mechanism and the stereochemical outcomes. 3. The basic principle of spectroscopic methods and their

				applications in structure elucidation of organic compounds using given spectroscopic data or spectra. **Course Outcomes:** The goal of this course is to introduce students to fundamental concepts in Chemical Biology and methods of chemistry used to solve problems in molecular and cell biology. After completion of this course, successful students will: CO1) Students will be able to explore new areas of research in both chemistry and allied fields of science and technology. CO2) Students will be able to function as a member of an interdisciplinary problem solving team. CO3) To impart the students thorough idea in the chemistry of carbohydrates, amino acids, proteins and nucleic acids etc. CO4) Be able to describe the chemical basis for replication, transcription, translation and how each of these central processes can be expanded to include new chemical

				matter. CO5) Develop skills to critically read the literature and effectively communicate research in a peer setting. At the end of course student will understand / able to explain CO1. Different characterization technique of solids. CO2. Principle of XRD, instrumentation of powder XRD, Brags law, applications of XRDfor crystal structure determination, numerical problems. CO3. Principle of SEM, instrumentation of SEM and interpretation of surface morphology of solid from SEM. CO 4. Principle of TEM, instrumentation of TEM and interpretation of TEM images. CO5. Basics of X-rays, Principle of XRF, types of XRF, instrumentation, qualitative and quantitative analysis, numerical. **At the end of course students will able to explain** 1. Valence electron count, back bonding in organometallics, spectral characterization of

				organometallic compounds. 2. Catalytic reaction involving organometallic compounds and mechanism of these reactions 3. Types of reaction involving organometallic compounds 4. Types of reactions in coordination compounds, inert and labile complexes, substitution reactions in coordination complexes and their mechanism, stereochemistry of reaction, kinetics of reactions. 5.The goal of this course is to introduce students to fundamental concepts in Chemical Biology and methods of chemistry used to solve problems in molecular and cell biology. After completion of this course, successful students will: 6. Students will be able to explore new areas of research in both chemistry and allied fields of science and technology. 7. Students will be able to function as a member of an interdisciplinary problem solving team. 8.To impart the students thorough

				idea in the chemistry of carbohydrates, amino acids, proteins and nucleic acids etc. 9.Be able to describe the chemical basis for replication, transcription, translation and how each of these central processes can be expanded to include new chemical matter. 10.Develop skills to critically read the literature and effectively communicate research in a peer setting. 11.Describe the importance of chemical biology research and interdisciplinary work 12.. This course is designed to make students aware of how to perform organiccompounds in laboratory. 13.The course includes synthesis of some derivatives and organic compounds, which will help them while working in research laboratory in future. 14. Making derivatives of organic compounds will help them in industry or while doing research in medicinal chemistry for Drug development. 15.This practical course is also

				designed to make student aware of green chemistry and role of green chemistry in pollution reduction. 16. The students learn how to avoid solvents and do solvent free reaction. 17. Also the work-up procedure in many experiments is made more eco-friendly to environment. **Course Outcomes:** CO1. Students are trained to different purification techniques in organic chemistry like recrystallization, distillation, steam distillation and extraction. CO2. Students are made aware of safety techniques and handling of chemicals. CO3. Students are made aware of carrying out different types of reactions and their workup methods. CO4. This practical course is designed to make student aware of green chemistry and role of green chemistry in pollution reduction.

Short Term Course (U.G & P.G)

Name of the Department	Class	Course Name	Course Outcome
Chemistry	**F.Y B.Sc.**	A Certificate Course in Instrumental Methods of Chemical Analysis	C.O 1. To acquire excellent knowledge of analytical chemistry. C.O 2. To determine pH C.O 3. To determine Conductance, Potential of water. C.O 4. To Acquire analytical technique
Chemistry	**S.Y B.Sc.**	A Diploma Course in Instrumental Methods of Chemical Analysis	C.O 1. To acquire excellent knowledge of analytical chemistry. C.O 2. Quantitative analysis technique and includes discussion of how to design an analytical method which depends on what information is needed.
Chemistry	**T.Y B.Sc.**	An Advance Diploma Course in Instrumental Methods of Chemical Analysis	C.O 1. How to obtain the laboratory sample that is representative of the whole, how to prepare it for analysis. C.O 2. Measurement tool are available automated analysis and the statistical significance of the analysis.
Chemistry	**M.Sc. I**	I.P.R **INTELLECTUAL PROPERTY RIGHTS**.	CO 1: Distinguish and Explain various forms of IPRs. CO 2: Identify criteria's to fit one's own intellectual work in particular form of IPRs. CO 3: Apply statutory provisions to protect particular form of IPRs. C O 4. Analyze rights and responsibilities of holder of patent, copyright, trademark, Industrial Designate.
Chemistry	**M.Sc. II**	Medicinal Chemistry	CO1: Definition, Classification of the drugs with examples and structures. CO2: Explain the Drugs used for various infectious diseases caused by pathogens. CO3: Describe the structure activity relation of some important class of drugs.

Department of BBA (CA)

Program outcome

Name of the Program	Program code	Program outcome
BBA(CA)		• POs 1: Ability to understand the concepts of key areas in computer science. • POs 2: Learn and apply computing and managerial principles to excel in professional career in the field of Computer Applications as an individual, as part of a team, and to deliver within constraint limits as a professional. • POs 3: Exhibit professional ethics, cyber regulations and communication skills, engage in lifelong learning and to adapt emerging technologies and tools for developing innovative software solutions. POs 4: Ability to design and develop system, component or process as well as test and maintain it so as to provide promising solutions to industry and society.

Program specific outcomes

Name of the Department	Program specific outcome
BBA(CA)	• PSOs 1: Students should be able to apply modern practices and strategies in software project development using open-ended programming environments to deliver quality product for business success in context with societal needs. • PSOs 2: An ability to gain knowledge on design and control strategy; techniques to secure information and adapt to the fast changing world of information technology needs. • PSOs 3: Design and develop Web and Mobile based computer applications • PSOs 4: An ability to use and develop cloud software, administrative features. Infrastructure services and architectural patterns; ethical hacking and forensic security technologies.

Course outcomes (Semester-wise)

Name of the Department	Class	Course code	Course Name	Course Outcome
BBA(CA)	FYBBA (CA) Sem-I	CA-101	Business Communication	CO1 Become adept to communicate and write effectively. CO2 Developing and delivering effective presentations. CO3 Create awareness among students about Methods and Media of communication. CO4 Make students familiar with information technology and improve job seeking skills.
		CA-102	Principles of Management	CO1 Practice the process of management's four functions: planning, organizing, leading, and controlling CO2 Evaluate leadership styles to anticipate the consequences of each leadership style. CO3 Understand the working of business organization CO4 Inculcate Entrepreneurial skills
		CA-103	C Language	CO1 To Understand how to use programming in day-to-day Applications CO2 Improve the problem-solving ability CO3 Understand and develop well-structured programs using C language
		CA-104	Database Management System	CO1 To understand the file structure and its organization. CO2 An introduction about Database management system

				CO3 Helps student to learn different types of data models CO4 Student gets knowledge about designing relational database
		CA-105	**Statistics**	CO1 To understand the power of excel spreadsheet in computing summary statistics. CO2 To understand the concept of various measures of central tendency and variation and their importance in business. CO3 To understand the concept and applications of probability, probability distributions in real life situations. CO4 To understand simulations in business world and decision making.
	FYBBA (CA) Sem-II	**CA-201**	**Organization Behavior & Human Resource Management**	CO1 Helps the students to understand the impact that individual, group & structures have on their behaviour within the organizations. CO2 Enhance and apply the knowledge they have received for the betterment of the organization. CO3 Helps in understanding the basics related to individual behaviour and its impact on their performance
		CA-202	**Financial Accounting**	CO1 Helps students to acquire sound knowledge of basic concepts of accounting CO2 Gains basic accounting knowledge CO3 Impart the knowledge about recording of transactions and preparation of final accounts 4) Acquaint the students about accounting software packages (Tally)
		CA-	**Business**	CO1 Students learned basics of fundamental maths

		203	**Mathematics**	CO2 Studied business problems and conversion into business maths CO3 Learned the concept of LPP and transportation problem CO4 Studied matrices and determinants
		CA-204	**Relational database**	CO1 Students get the knowledge of Relational Database concepts which is the basic requirements of every organization. CO2 Students get job as a DBA in good organizations. CO3 Students can go for certification too which helps to get good opportunities in their carrier.
		CA-205	**Web Technology HTML-JS-CSS**	CO1Give students the basic understanding of how things work in the Web world from the technology point of view as well as to give the basic overview of the different technologies.
	SYBBA (CA) Sem-III	**CA-301**	**Digital Marketing**	CO2 Students are able to implement best practices for creating, measuring, and optimizing display ad campaigns. CO3 Students are able to effectively build users lists, deliver e-mails & generate relevant clicks. CO4 Understand mobile marketing measurement and analytics. CO5 Make business decisions from the metrics available in Digital Media.
		CA-302	**Data Structure**	CO1 Students get the knowledge of Programming. CO2 Students get job as a Programmer in organizations. CO3 Data Structures using C subject is the basic requirements of every organization

		CA-303	**Software Engineering**	CO1 Graduates are knowledgeable of the ethics, professionalism, and cultural diversity in the work environment. CO2 Graduates can prepare and publish the necessary documents required throughout the project lifecycle. CO3 Graduates can effectively contribute to project discussions, presentations, and reviews. CO4 Develops Problem solving Skills CO5 Develops Team work ability
		CA-304	**Angular JS /PHP**	CO1 Give students the basic understanding of how things work in the Web world from the technology point of view as well as to give the basic overview of the different technologies. CO2 Understand how to develop web-based applications. CO3 Students are able to develop a dynamic webpage.
		CA-305	**Big data**	CO1 Understand the key issues in big data management and its associated applications in intelligent business and scientific computing. CO2 Acquire fundamental enabling techniques and scalable algorithms like Hadoop, Map Reduce and NO SQL in big data analytics. CO3 Interpret business models and scientific computing paradigms, and apply software tools for big data analytics.
		CA-305	**Block chain**	CO1 Blockchain technology landscape CO2 Applications and implementation strategies CO3 State-of-the-art, open research challenges, and

				future directions
	SYBBA (CA) Sem-IV	**CA-401**	**Networking**	CO1 Students can get job as a Network Administrator in any organization. CO2 This subject has wide scope in every MNC's as Networking is required everywhere. CO3 Students can go for Certifications like CCNA which helps to get better opportunities in M.N. C's.
		CA-402	**Object Oriented Concepts Through CPP**	CO1 To learn basic object-oriented concept CO2 To write C++ programs that use object-oriented concept such information hiding, constructors, destructors CO3 To know Inheritance, Polymorphism and its implementation in programming CO4 Basic understanding of Template and Exception handling
		CA-403	**Operating System**	CO1 To know system programming CO2 Helps to understand services provided by operating system CO3 To know Scheduling concept and scheduling algorithm CO4 Helps to understand deadlock detection, prevention, avoidance CO5 To know memory management in operating systems
		CA-404	**NODE JS /Advanced PHP**	CO1 Understand how to develop web-based applications. CO 2 Students are able to develop a dynamic webpage.
	TYBB	**CA-**	**Java**	CO1 Student studied basic knowledge of java

	A(CA) Sem-V	**501**	**Programming**	programming CO2 Learned the concept of class and objects, and basic concept of abstraction, encapsulation, inheritance and polymorphism CO3 Studied how to deal with the files CO4 Learned the concept of Frame and related functions
		CA-502	**Web Technologies**	CO1 Give students the basic understanding of how things work in the Web world from the technology point of view as well as to give the basic overview of the different technologies. CO2 Understand how to develop web-based applications. CO3 Students are able to develop a dynamic webpage.
		CA-503	**Dot Net Programming**	CO1 It introduces visual programming and event driven programming practically CO2 To know Architecture of ADO.Net CO3 Helps student to understand object-oriented programming in VB.NET CO4 To enhance applications development skills of the students
		CA-504	**Object Oriented Software Engineering**	CO1 This subject helps students to get job as a Developer or Tester in software company. Students will learn the concept of software engineering in object-oriented approach. CO2 This subject has wide scope in every MNC's.
		CA-601	**Advanced Web Technolo**	CO1 Give students the basic understanding of how things work in the Web world from the technology point of view as well as to give the basic overview

			gies	of the different technologies. CO2 Understand the concepts of XML and AJAX CO3 Students are able to develop a dynamic webpage.
	TYBB A(CA) Sem-VI	**CA-602**	**Advanced Java**	CO1 Studied the detailed knowledge of Thread and Multithreading CO2 Studied the basic concept of Java Database CO4 Studied the concept of Servlet and web and how to deal with the client and server on web applications Learned the concept of networking in java and concept like IP address, Data Input and Output Stream
		CA-603	**Recent Trends in IT**	CO1 This subject helps students to get knowledge of recent trends in Information Technology. CO2 Students will learn the concept of Network Security, Cloud Computing etc, which helps students to get job as a developer or network administrator in companies.
		CA-604	**Software Testing**	CO1 One of the Imp. Phase of SDLC, Students can get job as a Tester in software company. CO2 This subject has wide scope in every MNC's as Testing process is required from the starting of every project. CO3 Manual and Automation Testing both covers here, students can go for Certifications also which helps to get better opportunities in M.N.C's

Short Term Course Outcomes:

Name of the Department	Class	Course Name	Course Outcome
BBA(CA)	**FYBBA (CA)**	**Digital Marketing**	CO1 Students are able to implement best practices for creating, measuring, and optimizing display ad campaigns. CO2 Students are able to effectively build users lists, deliver e-mails & generate relevant clicks. CO3 Understand mobile marketing measurement and analytics. CO4 Make business decisions from the metrics available in Digital Media.
	SYBBA (CA)	**Full Stack Developer**	CO1 Full Stack Web Development Programmer will enable you to build interactive and responsive web applications using both front-end and back-end technologies. CO2 It starts with basics of Web Development, covers JavaScript and jQuery essentials, guides you to build remarkable user interface via Angular or React, helps you to build scalable backend applications using Express & Node.js plus manage data using MongoDB. CO3 By the end of the program participants will be become an industry-ready engineer who can be readily deployed in a project.

Department of Bachelor in Mass Communication and Journalism

Program outcome

Name of the Program	Program code	Program outcome
B.Voc (Bachelor in Mass Communication And Journalism)		PO1 Media Professional,
		PO2 Films Production Professional,
		PO3 Television GEC Professional
		PO4 Advertising Professional,
		PO5 Public Relation Officer
		PO6 Print and Broadcast Journalist
		PO7 Documentary Film Maker
		PO8 Radio Broadcast Professional
		PO9 Fashion Photographer
		PO10 Corporate Communication Manager

Program specific outcomes

Name of the Department	Program specific outcome
Television	Producer, Creative Head, Program me Producer, Serial Director, Promo Producer. Cameraman, Editor, Script writer, Sound Recordist, Art Director, Media Manager.
Sport Channel	Producer, Promo Producer, On-line Editor, Cameraman, Sound Recordist Media Manager
Broadcast News (Web News Portal, Digital Media)	Editor, Journalist, News Anchor, News Producer, Script writer, TV Correspondent, Cameraman, Sound Recordist, Media Manager.
Print Media	Editor, Journalist, Script writer, TV Correspondent, Photographer, Media Manager
Music Channel	Video Jockey, Producer, Creative Head, Program me Producer,

	Promo Producer. Editor, Script writer, Cameraman, Media Manager. Sound Recordist
Films	Producer, Director, Script writer, Cinematographer, Editor, Media Manager. Sound Recordist, Sound Designer. Art Director, Graphic Designer.
Radio	Radio Jockey/ R.J, Producer, Creative Head, Program me Producer, Promo Producer. Sound mixter Engineer, Script writer, Sound Recordist, Sound Designer Media Manager.
Advertisement	Creative Head, Copy writer, Director, client Service Manager, Graphic Designer
Media Researcher	Academician

Course outcomes (Semester-wise)

Name of the Department	Class	Course Name and code	Course Outcome
B.Voc (Semester I)	**First Year**	Introduction to Mass Communication **MC 101**	CO1 Gain the Knowledge of Mass Communication Field and Understand the Functioning of Mass Media With Theory.
		Introduction to Media **MC 102**	CO2 Gain the understanding of the traditional print, electronic and web media and inculcate the knowledge of growth of print, electronic Media and Films.
		Basics of Visual Communication **MC 103**	CO3 Develop the knowledge of basic elements of visual Communication through Which create a scenes of Visual Communication
		Communication and Soft Skills **MC 104**	CO4 To strengthen oral communication skills in Hindi/ Regional Language / English and develop the knowledge of written in Hindi/ English/Regional Language.

		Computer Application **MC 105**	CO5 Gain an understanding of Software's and Operating System to learn Computer to strengthen in IT skill.
		Basic Photography **MC 106**	CO6 To learn and earn throw photography, CO7 Develop a sense to operate Professional camera in advance Audio- Video Field.
B.Voc (Semester II)	**First Year**	Social issue and Idea **(MC-201)**	**CO1.** understand the sociological concept and theories **CO2.** understand the importance of sociology **CO3.** create understanding of the human society **CO4.** To develop the knowledge of Indian culture and Society **CO5.** inculcate the knowledge of current socio-cultural issues
B.Voc (Semester II)	**First Year**	Introduction To jounalisam **(Mc 202)**	**CO1.** introduce students to the basics of journalism. **CO2.** inculcate the knowledge of elements of journalism. **CO3.** acquaint them with important aspects of the process of Journalism. **CO4.** develop the knowledge of skills of journalism. **CO5.** enhance understanding of the technical terms and jargons of Journalism.
		Language skills **(Mc 203)**	**CO1.** Improved laguage skills . **CO2.** coroporate laguages and skill . **CO3.** Stages of languages skills. Devlop Carrier base skill.
		Advance photography and	**CO1.** film ficition and non fiction photography. **CO2.** Photograhy hardware and software with equitment specfic.

		Photojournalism **(MC 204)**	**CO3.** photo and video tools. **CO4.** Impart basic concepts and importance of Photography . Prepare photo journalist. Encourage self employment. **CO5.** Encourage creative skills **CO6.** Develop interest in photo journalism knowledge about photography and lighting.
		Design and Graphics **(MC 205)**	**CO1.** Introduction to graphics design. **CO2.** learn Graphics and graphics releted softwares. **CO3.** logo branding and graphics industry how it work ? **CO4.** How graphics and enterteaiment industry co releted with each other and their details.
		Experimental Journal **(MC 206)**	**CO1.** Understand basics of news writing. **CO2.** To understand the theory, methods, and practice of gathering information and writing news. **CO3.** To understand different writing techniques. **CO4.** To develop the knowledge of web writing. **CO5.** To inculcate the knowledge of news and backgrounder.
B.Voc (Semester III)	**Second Year**	Introduction to Mass communication thery **(MC 301)**	**CO1.** impart basic concepts meaning and models of mass communication **CO2.** make students aware about problems and issues of the mass communication. **CO3.** Inculcate knowledge of communication

			and relations with media and society. **CO4.** Know the functioning of media in mass communication coverage. **CO5.** Understanding the India and its problems with mass communication theory.
		Video editing theory **(MC 302)**	**CO1.** Impart basic concepts of Television and its development. **CO2.** Aware importance of television in media. **CO3.** Encourage graduates for self employability. **4.** Inculcate knowledge of economy of television media. **CO5.** Knowledge of the functioning of television channel , agencies, production house etc…
		Camera Fundamental	**CO1.** learn and earn throw videography. **CO2.** To understand videography basic. **CO3.** To understand the video structure. learn and work about various types of videography.
		Camera and lighting exe. **(MC 304)**	Practice with light and camera . (Various type of lights)
		Video Editing Exe **(MC 302)**	**CO1.** Familiarize the students with the basics of editing. **CO2.** understand the process of editing for various platforms. **CO3.** create understanding of specialized reporting CO**4.** inculcate the knowledge of dummy , printing and layout. **CO5.** develop the knowledge of edit.

		Television journalisam **(Mc 306)**	**CO1.** Understand Television journalism while practicing in the studios how to handle and use various television gadgets. **CO2.** Students will understand new trends in television journalism. **CO3.** introduce students techniques and skills for presentation, anchoring for television programme production. **CO4.** Students will know the procedure and techniques of different programme formats of television news and news based programme such as Field Report, Special Report, Election Report, Ground Report and walk and talk programme. **CO5.** Students will acquire skills and learn to use different softwares for editing television Programmes.
B.Voc (Semester IV)	**Second Year**	Introduction To Digital Media **(MC 401)**	**CO1.**Provide knowledge about the definitions and concepts of Digital media concept **CO2.** To know the difference between Digital media and other media **CO3.** understand the basic tools of digital media. **CO4.** impart the fundamentals of digital media and marketing career options.
		Script writing **(MC 402)**	**CO1.** Introduction to script writing. **CO2.** vairous types of scripts study. **CO3.** wriring project scripts.
		Introduction to Audio Visual Narrative	**CO1.** provide knowledge about the definitions and concepts of Audio Visual concept **CO2.** To know the value of audio visual

		(MC 403)	**CO3.** understand the basic tools of audio visual. **CO4.** impart the fundamentals of audio visual and career options.
		Film apprication **(MC 404)**	**CO1.** Understand the film language. **CO2.** Understand the making of films. **CO3.** Understand the various aspect of film.
		Basic Of Visual composition **(MC 405)**	**1.** Basic of Visual composition. **2.** Types and other important factor. **3.** Details study about visual language and aspect.
		Digital media and digital media Exe. **(MC 406)**	**CO1** Actual use of Digital media .
B.Voc **(Semester V)**	**Third Year**	Media Research **(MC 501)**	**CO1.** Impart the definitions and basic concepts of research, communication research, media research, social research and difference between communication research, media research and social research. **CO2.** Understand the need, role, importance functions and ethics of research. **CO3.** Know the elements of research. **CO4.** Learn the types of research. **CO5.** Impart the knowledge of basics of statistics and media metrics.
		Radio Programming **(Mc 502)**	**CO1.** Understand radio journalism while practicing in the studios how to handle and use various radio instrument and the mixers. **CO2.** Engage students in new trends in radio

			journalism **CO3.** Introduce students to the presentation, interviewing skills for new online radio. **CO4.** Visit radio commercial radio studios **CO5.** Acquaint students with the real world of radio production and transmission.
		Basic Advertising **(MC 503)**	**CO1.** Impart basic concepts of advertising and its development. **CO2.** Aware importance of advertising in media. **CO3.** Encourage graduates for self employability. **CO4.** Inculcate knowledge of economy of media. **CO5.** Knowledge of the functioning of advertising agencies
		Research seminar **(MC 504)**	**CO1.** Practicle about researchstudy.(Specfic sub) Develop a presentations to how reseacrch paper is present in seminar.
		Audio Production **(MC 505)**	**CO1.** Gain Knowledge of Audio production. Actual Use of Audio Production. Introduction to Audio production **CO2.** learn vairours software audio production **CO3.** film and audio reletions **CO4.** How audio and enterteaiment industry co releted with each other and their details. (film project)
		Video Production **(MC 506)**	**CO1.** Gain Knowledge of video production. Actual Use of video Production. Introduction to Audio production

			CO2. learn vairours software audio production **CO3.** film and video reletions **CO4.** How video and enterteaiment industry co releted with each other and their details. (film project)
B.Voc (Semester V)	**Third Year**	Media Research (MC 501)	**CO1** Impart the definitions and basic concepts of research, communication research, media research, social research and difference between communication research, media research and social research. **CO2** understand the need, role, importance functions and ethics of research. **CO3** know the elements of research. **CO4** learn the types of research. **CO5** impart the knowledge of basics of statistics and media metrics.
	Third Year	**Radio Programming (Mc 502)**	**CO**1. Understand radio journalism while practicing in the studios how to handle and use various radio instrument and the mixers. **CO2**. Engage students in new trends in radio journalism **CO3**. Introduce students to the presentation, interviewing skills for new online radio. **CO4.** Visit radio commercial radio studios **CO5.** Acquaint students with the real world of radio production and transmission.
	Third Year	**Basic Advertising (MC 503)**	**CO1.** Impart basic concepts of advertising and its development. **CO2.** Aware importance of advertising in media. **CO3.** Encourage graduates for self employability. **CO4.** Inculcate knowledge of economy of media. **CO5**. Knowledge of the functioning of advertising agencies
	Third Year	**Research seminar (MC 504)**	**CO1.** Practicle about researchstudy.(Specfic sub) Develop a presentations to how reseacrch paper is present in seminar.
	Third Year	**Audio Production (MC 505)**	**CO1.** Gain Knowledge of Audio production. Actual Use of Audio Production. Introduction to Audio production **CO2.** learn vairours software audio production

			CO3. film and audio reletions **CO4.** How audio and enterteaiment industry co releted with each other and their details. (film project
	Third year	**Video Production (MC 506)**	**CO1.** Gain Knowledge of video production. Actual Use of video Production. Introduction to Audio production **CO2.** learn vairours software audio production **CO3.** film and video reletions **CO4.** How video and enterteaiment industry co releted with each other and their details. (film project.
B.Voc (Semester Vi)	**Third Year**	**Public Reletion (MC 601)**	**CO1.** Provide knowledge about the definitions and concepts of public relations, publicity, propaganda, advertising and e-PR. **CO2.** know the difference between public relations and corporate communications, public relations and advertising, public relations and propaganda, public relations and publicity ,propaganda and publicity. **CO3.**understand the basic tools of public relations. **CO4.** impart the fundamentals of public relations writings. **CO5.** learn the ethics and laws of public relations
	Third Year	**Current Affair**	CO1 Impart the extensive knowledge about general knowledge, general awareness and contemporary activities at local, regional, national and international level about socio – economic issues. CO2. develop the extensive knowledge about general knowledge, general awareness and contemporary activities at local, regional, national and international level about political issues. CO3. To inculcate the extensive knowledge about general knowledge, general awareness and contemporary activities at local, regional, national and international level about educational and

			cultural issues. CO4. To impart the extensive knowledge about general knowledge, general awareness and contemporary activities at local, regional, national and international level about religious and spiritual issues. CO5. To develop the extensive knowledge about general knowledge, general awareness and contemporary activities at local, regional, national and international level about media related issues.
	Third year	**Media- Laws and ethics (MC 603)**	CO1 Shall get aware to legal aspects of the media and its values. CO 2. Shall have an overview of recent changes and future challenges of media regulation CO3.Shall have understanding of media ethics. CO4.Shall know how media laws and ethics empower media practitioners to perform their duties with commitment. And 3 Projects – Practicals.
		(MC 604)	Vocational project 1 audio visual prod.
		(MC 605)	Vocational project 2 Mini Dissertation
		(MC 606)	Vocational project 3 *in Death reporting*

Principal,
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