2.6.1 Program Outcomes, Program Specific Outcomes and Course Outcomes

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Program Outcomes, Program Specific Outcomes and Course Outcomes

Department of English

PROGRAMME: B.A. ENGLISH	
Programme Outcomes	PO-1. Demonstrate an attitude of service and commitment to social Change
	PO-2. Educate students in both the artistry and utility of the English languagethrough the study of literature.
	PO-3. Develop proficiency among students in oral and written communication
	PO-4. Make students able to apply critical and theoretical approaches to the reading and analysis of literary and cultural texts in multiple genres.
	PO-5. Develop creative ability among students.
Program Specific Outcomes	PSO-1. Understand the values of literature in life.
	PSO-2. Appreciate the literary works
	PSO-3. Know the literary theories, terms and concepts in Criticism.
	PSO-4. Attempt creative writings.
	PSO-5. Know phonological and morphological aspects of English.
	PSO-6. Use English effectively in formal and informal situations.
Course Outcomes F.Y.B.A. (CBCS-2019)	
Compulsory English	CO-1. Students are familiarized students with excellent pieces of prose and poetry in English so that they realize the beauty and communicative power of English
	Co-2. Students are exposed them to native cultural experiences and situations in order to develop humane values and social awareness
	Co-3. Development of overall linguistic competence and communicative skills of the students
Optional English (General Paper-I)	CO-1. Students are exposed to the basics of literature and language
	CO-2. Students are familiarized with different types of literature in English, the literary devices and terms so that they understand the literary merit, beauty and creative use of language
	CO-3. Students are exposed the basic units of language so that they become aware of the technical aspects and their practical usage
	CO-4. Students are prepared for a detailed study and understanding of literature and language
	CO-5. Development of an integrated view about language and literature.
S.Y.B.A. (CBCS-2019)	

Compulsory English (Core Course-CC)	CO-1. To develop language competency among the students for self-Learning
	CO-2 Familiarize the students with the excellent pieces of prose and poetry in English so that they realize the beauty and communicative power of English
	CO-3. Develop students' interest in reading literary pieces
	CO-4. Expose students to native cultural experiences and situations in order to develop values and social awareness
	CO-5. Develop overall linguistic competence and communication skills
Skill Enhancement Course (SEC-1A) (Linguistics)	CO-1. To familiarize the students with some advanced units of language so thatthey become aware of the technical aspects and practical usage.
	CO-2. To prepare students for the detailed study and understanding of different aspects and branches of language.
	CO-3. Make students able to use English sounds in isolation and in connected speech effectively.
	CO-4. Make students able to apply linguistic competence in their daily communication.
	CO-5. Improve the written communication of students through understanding of different syntactical elements and structures.
	CO-6. Develop students' integrated view about language and literature
Discipline Specific Course (DSC-1A) (Appreciating Drama)	CO-1. To familiarize the students with the terminology in Drama
	CO-2. To encourage the students to study a few sample masterpieces of English Drama from different parts of the world.
	CO-3. Develop interest among the students to appreciate and analyse drama independently
	CO-4. Enhance students' awareness in the aesthetics of Drama.
Discipline Specific Course (DSC-2A) (Appreciating Poetry)	CO-1. To familiarize the students with different terms in poetry
	CO-2. To encourage the students to study a few sample masterpieces of English poetry
	CO-3. Enhance students' awareness in the aesthetics of poetry and toempower them to read, appreciate and critically evaluate poetry independently.
Skill Enhancement Course (SEC-2A) (Communication Skills)	CO-1. To make students communicate effectively in different contexts
	CO-2. To enable the students to differentiate between verbal and non-verbal communication
	CO-3. To encourage the students to use soft skills in daily communication
	CO-4. Develop interest among the students to use technology for effective communication
	CO-5. Develop overall linguistic competence and communication skills
T.Y.B.A. (Pattern Regular-2019)	
Compulsory English (Core Course-CC)	CO-1. a) To familiarize students with some excellent pieces of prose and poetry in English so that they realize the beauty and communicative power of English.
	CO-2 b) To enable students to become competent and effective users of English in real life situations.
	CO-3.c) To contribute to the overall personality development of the students.

	CO-4. d) To instill humanitarian values and foster sympathetic attitude in the students.
	CO-5. e) To train the students in practical writing skills required in work environment.
	CO-6 f) To impart knowledge of some essential soft skills to enhance their employability.
Skill Enhancement Course (SEC 1-C & SEC 1-D) (Enhancing Employability Skills)	CO-1. To get the awareness of career opportunities available to them.
	CO-2. To identify the career opportunities suitable to them.
	CO-3. To understand the use of English in different careers.
	CO-4. To develop competence in using English for the career of their choice.
	CO-5. To enhance skills required for their placement.
	CO-6. To use English effectively in the career of their choice
	CO-7. To exercise verbal as well as nonverbal communication effectively for their career.
Discipline Specific Course (DSE-1C& DSE-1D) (Appreciating Novel)	CO-1. To introduce students to the basics of novel as a literary form
	CO-2. To expose students to the historical development and nature of novel
	CO-3. To make students aware of different types and aspects of novel
	CO-4. To develop literary sensibility and sense of cultural diversity in students
	CO-5. To expose students to some of the best examples of novel
Discipline Specific Course (DSE-2C & DSE-2D) (Introduction to Literary Criticism)	CO-1. To introduce students to the basics of literary criticism
	CO-2. To make them aware of the nature and historical development of criticism
	CO-3. To make them familiar with the significant critical approaches and terms
	CO-4. To encourage students to interpret literary works in the light of the critical approaches
	CO-5. To develop aptitude for critical analysis
Skill Enhancement Course (SEC 2-C & SEC 2-D) (Mastering Life Skills and Life Values)	CO-1. To equip the students with the social skills
	CO-2. To train the students interpersonal skills
	CO-3. To build self-confidence and communicate effectively
	CO-4. To Encourage the students to think critically
	CO-5. To learn stress management and positive thinking
	CO-6. To enhance leadership qualities.
	CO-7. To aware the students about universal human values
	CO-8. To develop overall personality of the students to make students communicate effectively in different contexts
F.Y.B.Com. (CBCS-2019)	
Compulsory English	CO-1. Students are familiarized with good pieces of prose and poetry so that they realize the beauty and communicative power of English
	CO-2. Students are exposed to the native cultural experiences and situations so that they understand the importance and utility of English language

	CO-3. To develop overall linguistic competence and communicative skills among the students
	CO-4. To develop oral and written communicative skills among the students so that their employability enhances and English becomes the medium of their livelihood and personality
S.Y.B.Sc. (CBCS-2019)	
English	CO-1. To offer students good pieces of prose and poetry so that they realize the beauty and communicative power of English.
	CO-2. To expose them to native cultural experiences and situations so that they understand the importance and utility of English language.
	CO-3. To develop oral and written interview skills among the students so that English becomes the medium of their livelihood.
	CO-4. To develop soft skills among the students to increase employability and create multi-dimensional personality.

Program Outcomes, Program Specific Outcomes and Course Outcomes

Department of Marathi

PROGRAMME: B.A. MARATHI	
अभ्यासक्रमाची गृहितके	राष्ट्रीय शैक्षणिक धोरणांची उद्दिष्टे प्रत्यक्षात आणताना, विद्यार्थीकेंद्री, आंतरविद्याशाखीय, रोजगाराभिमुख, कौशल्याधिष्ठित असे भाषा व साहित्याचे अभ्यासक्रम अनुसरणे, निर्माण करणे आवश्यक आहे. तसेच जीवन कौशल्य विकासासाठी भाषा, साहित्य, कला ही माध्यमे अधिक परिणामकारकतेने समजावूनन घेणे आवश्यक झाले आहे. साहित्यिकक्षमता, भाषिकक्षमता वाढीसाठी, जीवनाच्या आकलनासाठी आणि प्रगल्भतेसाठी विद्यार्थी सिद्ध करणे, ही आजची गरज बनली आहे.
अभ्यासक्रमाची उद्दिष्टे	१. मराठी भाषा, मराठी साहित्य आणि मराठी संस्कृती यांचे अध्ययन करणे.
	२. साहित्यविषयक आकलन,आस्वाद आणि मूल्यमापनक्षमता विकसित करणे.
	३. साहित्याभ्यासातून जीवनविषयक समज विकसित करणे.
	४. मराठी भाषेची उपयोजनात्मक कौशल्य विकसित करणे.
COURSE OUTCOMES	
F.Y.B.A. (Choice Based Credit System)	
F.Y.B.A. **General Marathi - (G-1)**	**पहिले सत्र**
	विषयाचे नाव : मराठी साहित्य:कथा आणि भाषिक कौशल्यविकास [CC-1 A)
	१. कथा या साहित्यप्रकाराची ओळख करून देणे.
	२. कथा या साहित्यप्रकाराचे स्वरूप,घटक आणि प्रकार यांची ओळख करून देणे.
	३. विविध साहित्यप्रवाहामधील कथा या साहित्यप्रकारातील निवडक कथाचे अध्ययन करणे.
	४. भाषिक कौशल्यविकास करणे.
	दुसरे सत्र
	विषयाचे नाव : मराठी साहित्य : एकांकिका आणि भाषिक कौशल्यविकास [CC-1 A)
	१. एकांकिका या साहित्यप्रकाराची ओळख करून देणे.
	२. एकांकिका या साहित्यप्रकाराचे स्वरूप, घटक आणि प्रकार यांची ओळख करून देणे.
	३. मराठी साहित्यातील निवडक एकांकिकाचे अध्ययन करणे.
	४. भाषिक कौशल्यविकास करणे.
S.Y.B.A. (Choice Based Credit System)	
S.Y.B.A. **General Marathi -(G-2)**	**पहिले सत्र**
	भाषिक कौशल्यविकास आणि आधुनिक मराठी साहित्यप्रकार : कादंबरी [CC-1 C(3)]
	१. कादंबरी या साहित्यप्रकाराचे स्वरूप, घटक प्रकार आणि वाटचाल समजून घेणे.
	२. नेमलेल्या कादंबरीचे आकलन,आस्वाद आणि विश्लेषण करणे.
	३. भाषिक कौशल्यविकास करणे.
	दुसरे सत्र
	भाषिक कौशल्यविकास आणि आधुनिक मराठी साहित्यप्रकार : ललितगद्य [CC-1 D(3)]
	१. ललितगद्य या साहित्यप्रकाराचे स्वरूप, घटक प्रकार आणि वाटचाल समजून घेणे.

	२. नेमलेल्या अभ्यासपुस्तकातील ललितगद्याचे आकलन,आस्वाद आणि विश्लेषण करणे.
	३. भाषिक कौशल्यविकास करणे.
S.Y.B.A. **Special Paper-I (S-1)**	**पहिले सत्र**
	आधुनिक मराठी साहित्य : प्रकाशवाटा [DSE 1 A (3)]
	१. आत्मचरित्र या साहित्यप्रकाराचे स्वरूप, संकल्पना समजावून घेणे.
	२. आत्मचरित्र या साहित्यप्रकाराच्या प्रेरणा आणि वाटचाल यांची ओळख करून घेणे.
	३. ललित गद्यातील अन्य साहित्यप्रकारांच्या तुलनेत आत्मचरित्राचे वेगळेपण समजावून घेणे.
	४. नेमलेल्या या आत्मचरित्राचे आकलन, आस्वाद आणि विश्लेषण करणे.
	दुसरे सत्र
	मध्ययुगीन मराठी साहित्य : निवडक मध्ययुगीन गद्य,पद्य [DSE 2 A (3)]
	१. मध्ययुगीन गद्य,पद्य साहित्यप्रकारांची ओळख करून घेणे.
	२. नेमलेल्या अभ्यासपुस्तकातील निवडक मध्ययुगीन गद्य,पद्याचे आकलन,आस्वाद आणि विश्लेषण करणे.
S.Y.B.A. **Special Paper-II (S-2)**	**पहिले सत्र**
	साहित्यविचार [DSE 1 B (3)]
	१. भारतीय आणि पाश्चात्य साहित्यविचाराच्या आधारे साहित्याची संकल्पना, स्वरूप आणि प्रयोजनविचार समजावून घेणे.
	२. साहित्याची निर्मितिप्रक्रिया समजावून घेणे.
	३. साहित्याची भाषा आणि शैली विषयक विचार समजावून घेणे.
	दुसरे सत्र
	साहित्यसमीक्षा [DSE 2 B (3)]
	१. साहित्य समीक्षेची संकल्पना, स्वरूप यांचा परिचय करून घेणे.
	२. साहित्य आणि समीक्षा यांचे परस्पर संबंध समजावून घेणे व अभ्यासणे.
	३. साहित्यप्रकारानुसार समीक्षेचे स्वरूप समजावून घेणे व अभ्यासणे.
	४. ग्रंथ परिचय, परीक्षण व समीक्षण यातील फरक समजावून घेणे.
S.Y.B.A. कौशल्याधिष्ठित अभ्यासक्रम	**पहिले सत्र**
	प्रकाशनव्यवहार आणि संपादन |SEC 2A (2)]
	१. प्रकाशनव्यवहार आणि संपादन यासाठी आवश्यक कौशल्ये मिळविणे.
	२. प्रकाशनव्यवहार आणि संपादन यासाठी आवश्यक प्रशिक्षण घेणे.
	३. प्रकाशनव्यवहार आणि संपादन यासाठी प्रात्यक्षिकासह उपयोजनाची कौशल्ये मिळविणे.
	४. प्रकाशन संस्था, जाहिरात संस्था, छापखाने, वृत्तपत्र कार्यालये, वितरण संस्था, ग्रंथ विक्री दुकाने, फ्लेक्स निर्मिती केंद्र, वार्ताहर यांना भेटी देऊन प्रशिक्षण घेणे.
	दुसरे सत्र
	उपयोजित लेखनकौशल्ये | SEC 2 B (2)|
	१. जाहिरात, मुलाखतलेखन आणि संपादन यासाठी आवश्यक कौशल्ये मिळविणे.
	२. जाहिरात, मुलाखतलेखन आणि संपादन यासाठी आवश्यक प्रशिक्षण घेणे.
	३.जाहिरात, मुलाखतलेखन आणि संपादन यासाठी प्रात्यक्षिकासह उपयोजनाची कौशल्ये मिळविणे.
S.Y.B.A. अनिवार्य अभ्यासक्रम **Modern Indian Languages Syllabus**	**पहिले सत्र**
	मराठी भाषिक संज्ञापनकौशल्ये [MIL 2 (2)]
	१. प्रगत भाषिक कौशल्यांची क्षमता विकसित करणे.
	२. प्रसारमाध्यमांतील संज्ञापनातील स्वरूप आणि स्थान स्पष्ट करणे.
	३. व्यक्तिमत्त्व विकास आणि भाषा यांच्यातील सहसंबंध स्पष्ट करणे.
	४. लोकशाहीतील जीवनव्यवहार आणि प्रसारमाध्यमे यांचे परस्पर संबंध स्पष्ट करणे.
	५. प्रसारमाध्यमांसाठी लेखनक्षमता विकसित करणे.

	दुसरे सत्र
	नवमाध्यमे आणि समाजमाध्यमांसाठी मराठी |MIL 2 (2)]
	१. संज्ञापनातील नवमाध्यमे आणि समाजमाध्यमांचे स्वरूप आणि स्थान स्पष्ट करणे.
	२. भाषा, जीवनव्यवहार आणि नवमाध्यमे, समाजमाध्यमांचे परस्परसंबंध स्पष्ट करणे.
	३. नवमाध्यमे आणि समाजमाध्यमांसाठी लेखनक्षमता विकसित करणे.
	४. नवमाध्यमे आणि समाजमाध्यमांविषयक साक्षरता निर्माण करणे.
	५. नवमाध्यमे आणि समाजमाध्यमांचा वापर आणि परिणाम याबद्दल चर्चा करणे.
T.Y.B.A. Choice Based Credit System *(२०२१- २०२२)*	
T.Y.B.A. **General Marathi (G-3)**	**पहिले सत्र**
	भाषिक कौशल्य विकास आणि आधुनिक मराठी साहित्य प्रकार – प्रवासवर्णन
	१ मुद्रित माध्यमासाठी लेखन कौशल्ये आत्मसात करणे.
	२ प्रवासवर्णन या साहित्य प्रकारचे स्वरूप ,प्रेरणा ,प्रयोजने ,वैशिष्टे आणि वाटचाल समजून घेणे.
	३ नेमलेल्या प्रवास वर्णनाचे आकलन ,आस्वाद आणि विश्लेषण करणे।
	दुसरे सत्र -
	भाषिक कौशल्य विकास आणि आधुनिक मराठी साहित्य प्रकार – कविता
	१ मराठी साहित्य, भाषिक कौशल्यविकास आणि शासनव्यवहार यांची माहिती घेणे.
	२ कविता या साहित्यप्रकाराचे स्वरूप, वाटचाल, प्रेरणा प्रवृत्ती आणि वैशिष्ट्ये समजून घेणे.
	३. नेमलेल्या अभ्यासपुस्तकातील निवडक कवितांचे आकलन, आस्वाद आणि विश्लेषण करणे,
	४ कविता या साहित्यप्रकारातील विविध आविष्कार व भाषा रूपांची अभ्यासपुस्तकातील कवितांच्या आधारे ओळख करून घेणे
T.Y.B.A. **Special Paper III (S-3)**	**पहिले सत्र- मध्ययुगीन मराठी वाङ्याचा स्थूल इतिहास प्रारंभ ते इ.स. १६००**
	१वाड;मयेतिहास संकल्पना, स्वरूप, प्रेरणा, प्रवृत्ती समजून घेणे.
	२ मध्ययुगीन कालखंडाची सामाजिक, सांस्कृतिक पार्श्वभूमी समजून घेणे. मराठी भाषा, साहित्याची कालखंडानुरूप इतिहास समजून घेणे.
	३ मराठी भाषा, साहित्याची कालखंडानुरूप इतिहास समजून घेणे.
	दुसरे सत्र -मध्ययुगीन मराठी वाङ्याचा स्थूल इतिहास प्रारंभ ते इ.स. १६०० ते इ.स.१८१७
	१.वाड;मयेतिहास संकल्पना, स्वरूप, प्रेरणा, प्रवृत्ती समजून घेणे.
	२. मध्ययुगीन कालखंडाची सामाजिक, सांस्कृतिक पार्श्वभूमी समजून घेणे. मराठी भाषा, साहित्याची कालखंडानुरूप इतिहास समजून घेणे.
	३.मराठी भाषा, साहित्याची कालखंडानुरूप इतिहास समजून घेणे.
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	वर्णनात्मक भाषाविज्ञान भाग-१
	१. भाषा स्वरूप, वैशिष्ट्ये व कार्ये समजावून घेणे.
	२.भाषा अभ्यासाची आवश्यकता स्पष्ट करणे.
	३.भाषा अभ्यासाच्या शाखा आणि विविध पद्धतींचा थोडक्यात परिचय करून घेणे.
	४. वागिन्द्रियाची रचना, कार्य आणि स्वननिर्मितीची प्रक्रिया समजावून घेणे
	५. स्वनविज्ञान, स्वनिमविचार आणि मराठीची स्वनिमव्यवस्था समजावून घेणे
	दुसरे सत्र -
	वर्णनात्मक भाषाविज्ञान भाग -२
	१. रूपविन्यास आणि मराठीची रूपव्यवस्था समजावून घेणे
	२. वाक्यविन्यास आणि वाक्यव्यवस्थेचा मराठी भाषेच्या संदर्भात परिचय करून देणे
	३. अर्थविन्यास या संकल्पनेचा भाषावैज्ञानिक अंगाने परिचय करून देणे
T.Y.B.A.	**पहिले सत्र -**

SEC	**कार्यक्रम संयोजनातील भाषिक कौशल्ये भाग -१**
	१ कार्यक्रमांचे स्वरूप आणि प्रकार समजून घेणे.
	२.कार्यक्रम संयोजनातील भाषिक कौशल्ये प्राप्त करणे
	दुसरे सत्र -
	कार्यक्रम संयोजनातील भाषिक कौशल्ये भाग -२
	१. कार्यक्रम संयोजनातील लेखन कौशल्ये संपादन करणे.
	२ .कार्यक्रम संयोजनातील भाषिक कौशल्ये प्राप्त करणे.
	३.आभासी कार्यक्रमांचे भाषिक कौशल्ये संयोजन करणे.
FYB Com (Ability Enhancement Course)	
F.Y.B.Com. **Compulsory Marathi**	**पहिले/दुसरे सत्र**
	विषयाचे नाव : भाषा, साहित्य आणि कौशल्यविकास [117)
	१. विविध क्षेत्रातील भाषा व्यवहाराची स्वरूप व गरज समजावून देणे.
	२. या व्यवहार क्षेत्रातील मराठी भाषेचे स्थान स्पष्ट करणे व त्यातील मराठीच्या प्रत्यक्ष वापराचा अभ्यास करणे.
	३. विविध क्षेत्रीय मराठी भाषेच्या वापराची कौशल्ये विकसित करणे.
	४. विविध लेखनप्रकारांचा अभ्यास व प्रत्यक्ष लेखनाची कौशल्ये वापरण्यास सक्षम करणे.
	५. विविध क्षेत्रातील कर्तुत्ववान व्यक्तींच्या कार्याची व विचारांची ओळख करून देणे.
	६.**विद्यार्थ्यांमध्ये** नैतिक, व्यवसायिक व वैचारिक मूल्यांची जोपासना करणे.

Program Outcomes, Program Specific Outcomes and Course Outcomes

हिंदी विभाग

पाठ्यक्रम उद्धिष्ट तथा उपलब्धियाँ

अ.क्र.	पाठ्यक्रम तथा विषय	पाठ्यक्रम -उद्धिष्ट	पाठ्यक्रम –उपलब्धियाँ
1	**F.Y.B.A. Hindi Gen (CBCS-2019)**	**1.** छात्रों को हिंदी गद्य तथा पद्य का परिचय कराते हुए प्रतिनिधि हिंदी रचनाकारों का परिचय देना **2.** हिंदी साहित्य के प्रति छात्रों की रूचि बढ़ाते हुए विभिन्न विधाओं से परिचित कराना **3.** छात्रों में राष्ट्रप्रेम एवं सामाजिक प्रतिबद्धता की भावना विकसित करना। **4.** छात्रों में नैतिक, राष्ट्रीय, सामाजिक तथा वैज्ञानिक मूल्यों के प्रति आस्था जगाना। **5.** पारिभाषिक शब्दावली, पत्रलेखन, अनुवाद, सारांश लेखन, निबंध लेखन तथा वाक्य शुद्धीकरण आदि प्रयोजनीय पक्षों से अवगत कराना।	**1.** छात्र हिंदी गद्य, पद्य, प्रतिनिधि रचनाकारों से परिचित होते हुए उनमें हिंदी साहित्य के प्रति रूचि बढ़ जाती है। वे साहित्य की विधाओं से परिचित होते हैं। **2.** छात्रों में राष्ट्रप्रेम तथा सामाजिक प्रतिबद्धता एवं भावना विकसित होती हैं। वे नैतिक, राष्ट्रीय, सामाजिक एवं वैज्ञानिक मूल्यों के प्रति सचेत होते हैं। **3.** छात्र हिंदी साहित्य के प्रयोजनीय पक्ष से अवगत होते हुए पत्रलेखन, सारांश लेखन, निबंध लेखन आदिल पक्षों से परिचित होते हैं। साथ ही पारिभाषिक शब्दावली, वाक्य शुद्धीकरण एवं अनुवाद आदि प्रयोजनीय हिंदी के रूपों से परिचित हो जाते हैं।
2	**S.Y.B.A. G-2 (CBCS-2019)**	उद्देश्य 1.छात्रों को काव्य साहित्य से परिचित कराना। 2. छात्रों को कहानी साहित्य से परिचित कराना। 3. छात्रों को हिंदी कारक-व्यवस्था समझाना। 4 शब्द युग्म का अर्थ लिखकर प्रत्यक्ष वाक्य में प्रयोग समझाना। 5 संक्षेपण लेखन का प्रत्यक्ष बोध कराना। 6 सर्जनात्मकता का विकास कराना। 7 छात्रों को व्यंग्य पाठ से परिचित कराना। 8 छात्रों को कहानी व्यंग्य पाठ का बोध कराना। 9 साक्षात्कार कला से अवगत कराना।	1.छात्र हिंदी के प्रतिनिधि कहानीकार और कवियों से परिचित होने लगता है। 2. हिंदी की कहानी और नई कविता के भाव को समझने लगता है। 3. छात्रों को हिंदी के कार्यालयीन एवं व्यापारी पत्रों का ज्ञान हो जाता है। 4. छात्रों को पारिभाषिक शब्द, विज्ञापन, साक्षात्कार आदी से परीचय होने लगता है। 5. छात्रों को शब्द युग्म का ज्ञान होता है। 6.छात्र व्यंग्य की आवश्यकता और महत्व को समझता है। 7. मोबाईल में भाषा तंत्र का उपयोग एवं

		10 भाषा का मोबाइल तंत्र समझाना। 11 पल्लवन कला से अवगत करना।	लेखन करना समझता है। 8 बोलते समय भाषा में पल्लवन का उपयोग करता है।
3	**S.Y.B.A. S-1 (CBCS-2019)**	1 भारतीय काव्यशास्त्र का परिचय देना। 2 काव्य परिभाषा तत्व आदि से अवगत कराना। 3 काव्य के तत्व शब्द-शक्तियां का परिचय देना । 4 रस का स्वरूप समझाना। 5 भारतीय काव्यशास्त्र में रुचि पैदा करना तथा आलोचनात्मक दृष्टी को विकसित कराना। 6 छात्रों को साहित्य के भेद से अवगत कराना। 7 छात्रों को पद्य भेद से अवगत कराना। 8 महाकाव्य खंडकाव्य और मुक्तक काव्य का परिचय कराना। 9 नाटक का स्वरूप समझाना। 10 छात्रों में नाट्य अभिनय की रुचि विकसित करना।	1.छात्र भारतीय काव्यशास्त्र से परिचित होता है। 2. छात्र काव्य कि परिभाषा, तत्व आदि का भाषा में समीक्षा करणे लगता है। 3. छात्र अपनी अभिव्यक्ति में शब्द शक्ति का प्रयोग करणे लगता है। 4. छात्र अपनी भाषा में रस ग्रहण करणे लगता है। 5. छात्रों की आलोचना कि दृष्टि विकसित होती है। 6. छात्र साहित्य की विविध विधओं से परिचित होकर मनपसंद विधा का चुनाव करता है। 7. छात्र महाकाव्य, खंडकाव्य और मुक्तक काव्य से परिचित होता है। 8. छात्र नाट्य अभिनय कला को आत्मसात करता है।
4	**S.Y.B.A. S-2 (CBCS-2019)**	1. कबीर के साहित्य का परिचय देना। 2. मीराबाई के काव्य से अवगत कराना। 3. भारतीय उपन्यास की अवधारणा समझाना। 4. उपन्यास कृति का मूल्यांकन कला विकसित करना। 5. साहित्य कृतियों प्रस्तुत जीवनमूल्या को आत्मविस्तृत करना। 6. रहीम के काव्य का बोध कराना। 7. बिहारी की काव्य अभिव्यंजना समझाना। 8. हिंदी नाटक और रंगमंच से अवगत कराना। 9. छात्रों में अभिनय गुण विकसित कराना। 10 नाट्यालोचना से अवगत करना।	1. मध्ययुगीन प्रतिनिधी कवियों के योगदान तथा उनकी वैचारिक पृष्ठ्भूमि से छात्र परिचित हुए। 3. प्रस्तुत पाठ्यक्रम के कारण छात्र मध्ययुगीन संत तथा उनके काव्य संसार से परिचित हो जाते हैं। 4. छात्र हिंदी उपन्यास एवं नाटक विधा के मानदंडों के आधार पर समीक्षा करते हैं। साथ ही हिंदी उपन्यास तथा नाटक के अध्ययन में रुचि निर्माण हुई। 5. विवेच्य साहित्य कृती के माध्यम से छात्र साहित्य के शिल्प तथा सौंदर्य से परिचित हुए। 6. छात्रों में अभिनय कौशल्य विकसित हो जाता है।

5	**SEC 2A (CBCS-2019)**	1 अनुवाद कौशल से छात्रों को अवगत कराना। 2 अनुवाद का स्वरूप समझाना। 3 अनुवाद क्षेत्र से परिचय कराना। 4 हिंदी से मराठी में प्रत्यक्ष्य अनुवाद कार्य कराना। 5 अंग्रेजी से हिंदी, मराठी में अनुवाद कौषल का विकास कराना	1. छात्रों में विविध भाषा में अनुवाद करणे में रुची उत्पन्न हो जाती है। 2. छात्र अनुवाद के विविध क्षेत्र से परिचित होते है। 3. छात्र हिंदी से मराठी में प्रत्यक्ष्य अनुवाद कार्यकार्य से परिचित होता है।
6	**SEC 2A (CBCS-2019)**	1 छात्रों को माध्यम लेखन से परिचत कराना। 2 सृजनात्मक लेखन कौषल विकसित कराना। 3 माध्यम लेखन से अवगत कराना। 4 श्रव्य-दृष्य माध्यमों की भाषा से अवगत कराना।	1 छात्र लेखन मध्य्मोंसे परिचित होता है। 2. छात्र लेखन कौषल के तंत्र से अवगत होता है। 3. छात्र श्रव्य-दृष्य माध्यमों की भाषा से परिचित होता है।
7	**T.Y.B.A. G-3**	उद्देश्य 1.छार्तों को संस्मरण साहित्य से अवगत करना। 2.छार्तों को रेखाचिर्त साहित्य से अवगत करना। 3.छार्तों को मूल्यांकन की दृश्टि का विकास करना। 4.सभा-इतिवृत्त लेखन कौषल वृद्धि का विकास करना। 5. वार्ता-लेखन कौषल दृश्टि निर्माण करना। 6.छार्तों को गज़ल साहित्य से अवगत करना। 7. छार्तों को गज़लकार के व्यक्तित्व से अवगत करना। 8. छार्तों में मूल्यांकन की दृश्टि का विकास करना। 9. छार्तों को सरकारी पत्र लेखन से अवगत करना।	1.छात्र हिंदी के संस्मरण साहित्य से परिचित होने लगता है। 2. छात्र हिंदी केरेखाचित्र साहित्य से परिचित होने लगता है। 3. छात्र को हिंदी संस्मरण एवं रेखाचित्र के प्रति मूल्यांकन दृष्टि विकसित होने लगती है। 4. छात्र सभा इतिवृत्त लेखन कौशल वृद्धिगत करने का प्रयास करता है। 5. छात्र भाषा तंत्र का उपयोग एवं लेखन करना समझता है। 6. छात्र हिंदी के गज़ल साहित्य से अवगतहोने लगता है। 7. छात्र हिंदी केगज़लकार के व्यक्तित्व से परिचित होने लगता है। 8. छात्रगज़ल साहित्य स के प्रति मूल्यांकन की दृश्टि का विकास हो जाता है। 9. छात्रसरकारी पत्र लेखन से अवगत हो जाता है ।
8	**T.Y.B.A. Sp-3**	1. हिंदी साहित्येतिहास लेखन का परिचय देना। 2. हिंदी साहित्येतिहास के कालविभाजन तथा नामकरण का परिचय देना। 3. आदिकालीन, भक्तिकालीन, रीतिकालीन प्रमुख साहित्यिक प्रवृत्तियों, रचनाकारों और	1. छात्र हिंदी साहित्येतिहासके लेखन का परिचयप्राप्त करता है। 2. छात्रहिंदी साहित्येतिहास के कालविभाजन तथा नामकरण परिचयप्राप्त करता है। 3. छात्र आदिकालीन, भक्तिकालीन,

		रचनाओं से परिचित कराना। 4 आधुनिक काल की पृश्ठभूमि से छात्र अवगत कराना। 5 .भारतेंदु युगीन, द्विवेदी युग के काव्य की विषेशताओं से छात्रो को अवगत कराना। 6. आधुनिक काल के रचनाकारों और रचनाओं से परिचित कराना। 7. हिंदी गद्य के उद्भव और विकास से छात्रों को अवगत कराना	रीतिकालीन प्रमुख साहित्यिक प्रवृत्तियों, रचनाकारों और रचनाओं से परिचित हो जाता है। 4. छात्र आधुनिक काल की पृश्ठभूमि से छात्र अवगत हो जाता है। 5. छात्र भारतेंदु युग, द्विवेदी युग के काव्य की विषेशताओं से अवगत हो जाता है। 6. छात्रआधुनिक काल के रचनाकारों और रचनाओं से परिचित हो जाता है। 7. छात्र हिंदी गद्य के उद्भव और विकास से अवगत हो जाता है।
9	**T.Y.B.A. SP-4**	1. भाषाविज्ञान के स्वरूप का परिचय देना। 2. छात्रों को भाषाविज्ञान की व्याप्ति समझाना। 3. भाषाविज्ञान के अध्ययन की दिषाओं का परिचय देना। 4. भाषाविज्ञान के अनुप्रयोगात्मक पक्ष को समझाना। 5. साहित्य-अध्ययन में भाषाविज्ञान की उपयोगिता समझाना। 5.भाषाविज्ञान के स्वरूप का परिचय देना। 6.छात्रों को भाषाविज्ञान की व्याप्ति समझाना। 7.भाषाविज्ञान के अध्ययन की दिशाओं का परिचय देना। 8.भाषाविज्ञान के अनुप्रयोगात्मक पक्ष को समझाना। 9. साहित्य-अध्ययन में भाषाविज्ञान की उपयोगिता समझाना।	1. छात्र भाषाविज्ञान के स्वरूप का परिचय प्राप्त करता है। 2. छात्रभाषाविज्ञान की व्याप्ति समझाने लगता है। 3. छात्रभाषाविज्ञान के अनुप्रयोगात्मक पक्ष को समझाने लगता है। 4. छात्रसाहित्य-अध्ययन में भाषाविज्ञान की उपयोगिता का ज्ञान प्राप्त करता है। 5. छात्र भाषाविज्ञान के स्वरूप के परिचय से अवगत हो जाता है। 6. छात्रभाषाविज्ञान की व्याप्ति को आत्मसात करता है। 7. छात्र भाषाविज्ञान के अध्ययन की दिशाओं का परिचयप्राप्त करता है। 8. छात्रभाषाविज्ञान के अनुप्रयोगात्मक पक्ष को समझ लेता है। 9. छात्रसाहित्य-अध्ययन में भाषाविज्ञान की उपयोगिता समझ लेता है।
10	**T.Y.B.A. SEC**	1.छात्रों को स्क्रिप्ट लेखन, अर्थ, परिभाशा से अवगत कराना। 2. छात्रों को कथा, पटकथा और संवाद से परिचित कराना। 3. छात्रोंको ड्राफ्ट बनाने से परिचित कराना। 4. छात्रोंमें सिनेमा का स्वरूप से परिचित कराना। 5.छात्रोंको हिंदी साहित्य और सिनेमा के अन्तसंबंध से परिचित कराना।	1. छात्रस्क्रिप्ट लेखन, अर्थ, परिभाशा से अवगत हो जाता है। 2. छात्र कथा, पटकथा और संवाद से परिचित हो जाता है। 3. छात्र ड्राफ्ट बनाने की कला से अवगत हो जाता है। 4. छात्रसिनेमा के स्वरूप से परिचित हो जाता है। 5. छात्र हिंदी साहित्य और सिनेमा के

		6.छात्रों को हिंदी उपन्यासों पर आधारित फिल्मों से अवगत कराना।	अन्तसंबंध से परिचित हो जाता है। 6. छात्रहिंदी उपन्यासों पर आधारित फिल्मों से अवगत हो जाता है।
11	**S.Y.B.A. Gen-2 (CBCS- 2019)**	1.छात्रों को हिंदी के प्रतिनिधि कहानीकार एवंकवियों से परिचित कराना। 2.छात्रों को हिंदी कहानी एवं नई कविता की विशेषताओं के परिचित कराना । 3. हिंदी के कार्यालय एवं व्यापारिक पत्रों के स्वरुप का ज्ञान देना। 4.छात्रों को पारिभाषिक शब्द विज्ञापन वेट वार्ता साक्षात्कार रिपोर्ट लेखन आदि हिंदी भाषा के व्यवहारिक क्षेत्रों से परिचित कराना। 5.छात्रों को हिंदी शब्द युग्म का ज्ञान कराना।	छात्र हिंदी के प्रतिनिधि कहानीकार और कवियों से परिचित होने लगता है ।हिंदी की कहानी और नई कविता के भाव को समझने लगता है।छात्रों को हिंदी के कार्यालय एवं व्यापारिक पत्रों का ज्ञान हो जाता है।छात्रों को पारिभाषिक शब्द विज्ञापन वार्ता साक्षात्कार आदि से परिचय होने लगता है।छात्रों को शब्द युग्म का ज्ञान होता है।
12	**S.Y.B.A. SP-1 (CBCS- 2019)**	1.छात्रों कोभाषा की परिभाषा विशेषताएं तथा भाषा के विविध रूपों की जानकारी देना। 2.छात्रों को हिंदी कीबोलियों तथा भाषा विकास के प्रमुख वादों से परिचित कराना। 3.छात्रों को राजभाषा हिंदी के संवैधानिकस्वरूपतथा राष्ट्रभाषा का प्रचार करने वाली संस्थाओं से परिचित कराना। 4.छात्रों में भाषा के वैज्ञानिक अध्ययन कीदृष्टि निर्माण करना। 5. भाषा विज्ञान के अंगों तथा भाषा विज्ञान की शाखा का परिचय कराना। 6. भाषा विज्ञान का अन्य विज्ञानों से संबंधविषद करना। 7.लिपि के स्वरूप एवं उत्पत्ति का इतिहास देवनागरी लिपि की वैज्ञानिकता की जानकारी देना।	छात्रों को भाषा की परिभाषा तथा भाषा के विविध रूपों की जानकारी होती है।हिंदी की बोलियां तथा भाषा विकास के प्रमुख वादों का परिचय हो जाता है।राजभाषा हिंदी के संवैधानिक स्वरूप तथा राष्ट्रभाषा का प्रचार करने वाली संस्थाओं से परिचित होता है।भारतीय वैज्ञानिक अध्ययन की दृष्टिनिर्माण होती है।भाषा विज्ञान के अंगों तथा भाषा विज्ञान की शाखाओं का परिचय होने लगता है।भाषा विज्ञान का अन्य विज्ञानों से संबंध समझ में आता है।लिपि के स्वरूप एवं उत्पत्ति का इतिहास देवनागरी लिपि की वैज्ञानिकता समझती है।
12	**F.Y.B.Com. (CBCS- 2019)**	1. छात्रों को हिंदी के गद्य एवं पद्य की प्रतिनिधि रचना करो का परिचय देना। 2.हिंदी साहित्य के प्रति छात्रों की रूचि बढ़ाना तथा साहित्य की विविध विधाओं से परिचय कराना । 3.विधाओं के माध्यम से छात्रों का भावात्मक	छात्रों को हिंदी के गद्य एवं पद्य के प्रतिनिधि रचनाकारों का परिचय होता है।हिंदी साहित्य के प्रति छात्रों रुचि बढ़ती है । राष्ट्रीय खेल सामाजिक, उत्तरदायित्व, वैज्ञानिकता आदि मूल्यों के प्रति जागृति होती है । सफल व्यापारी एवं उद्योजक की

		विकासकराना। 4.छात्रों में राष्ट्र के प्रति प्रेम एवं सामाजिक प्रतिबद्धता विकसित करना। 5.राष्ट्रीय एकता, सामाजिक, उत्तरदायित्व, वैज्ञानिकता के प्रति आदि मूल्यों के प्रति छात्रों का ध्यान आकर्षित करा । 6.सफल व्यापारी एवं उद्योजक की गुणवत्ता से अवगत कराना । 7.नैतिक मूल्य, राष्ट्रीय मूल्य सामाजिक मूल्यों के प्रति आस्था निर्माण करना। 8.परिभाषिक शब्दावली के माध्यम से वाणिज्य तथा बैंकों में प्रयुक्त हिंदीशब्दों से परिचित कराना । 9.पत्र लेखन, विज्ञापन लेखन आदि के माध्यम से भाषा के रचनात्मक पहलू से परिचित कराना । 10.संक्षेपन आदि के माध्यम से विचार क्षमता को बढ़ावा देना।	गुणवत्ता बढ़ती है।परिभाषिक शब्द के माध्यम से छात्रों को वाणिज्य तथा बैंकों में प्रयुक्त हिंदी शब्द से परिचित होता है।विज्ञापन लेखन आदि के माध्यम से छात्रों को भाषा केरचनात्मक पहलू है।संक्षेपन आदि के माध्यम से छात्रों की विचार क्षमता और कल्पना शक्ति बढ़ती है।

Program Outcomes, Program Specific Outcomes and Course Outcomes

Department of Geography

PROGRAMME: B.A. GEOGRAPHY	
Programme Outcomes	PO-1. The Geographical maturity of students in their current and future courses shall develop.
	PO-2. The student develops theoretical, applied and computational skills
	PO-3. Acquaint the students with the nature of man-environment relationship and human capability to adopt and modify the environment under its varied conditions from primitive life style to the living.
	PO-4. To identify and understand environment the population in terms of their quality and spatial distribution pattern and to comprehend the contemporary issues facing the global community.
	PO-5 To aware the students with the utility & application of hazards in different areas and its management.
	PO-6 To introduce the basic concepts and techniques of geographical analysis
	PO-7 To train the students in elementary statistics as an essential part of geography
Programme Specific Outcomes	PSO-1. To acquaint the students with geography of our Nation
	PSO-2. To make the students aware of the magnitude of problems and prospects at National level.
	PSO-3. Help the students to understand the inter relationship between the subject and the society.
	PSO-4. Help the students to understand the recent trends in regional studies.
	PSO-5. Agriculture activities and its relation with Geography
	PSO-6. To enable students to apply previously knowledge in problems and prospects in agriculture.
	PSO-7 To introduce students the concept of disaster & its relation with Geography.

	PSO-8 To awareness about GIS among the students
Course Outcomes F.Y.B.A.	
Physical Geography-I Gg. 110 (A) 11201	CO- 1 To introduce the students to the basic concepts in Physical Geography.
	CO-2 To introduce latest concept in Physical Geography.
	CO-3 To acquaint the students with the utility and application of Physical Geography in different regions and environment.
	CO-4 To make the students aware about Earth system (Lithosphere, Atmosphere, Biosphere and Hydrosphere)
Human Geography-I Gg. 110 (B) 12201	CO-1 The geographical maturity of students in their current and future courses shall develop.
	CO-2 The students develops theoretical and computational skills.
Course Outcomes S.Y.B.A.	
Environmental Geography-I (G1) CC 1C	CO-1 To create the awareness about dynamic environment among the student.
	CO-2 To acquaint the students with fundamental concepts of environment.
	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 of Maharashtra-I (S1) DSE 1A	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.
Practical Geography-I (Scale and Map Projection (S2) DSE 2A	CO-1 To introduce the basic concepts in practical geography.
	CO-2 To enable students to use various scales and projection techniques in geography.

	CO-3 To acquaint students with the utility of various projections in geographical knowledge.
	CO-4 To explain the elementary and essential of practical work in geography.
	CO-5 Develop practical skill and use of map scale and projection.
	CO-6 To make students aware of the new techniques, accuracy and skills of map making.
Applied Course of Disaster Management SEC 2A	CO-1 To develop basic framework to understand the various elements of tourism management.
	CO-2 To evaluate the role of transport in travel and tourism industry.
	CO-3 To develop the skill to arrange, manage and implement various types of tours.
	CO-4 Students will be able to perform online as well as offline booking and cancellation procedures for different available modes of travel and tourism.
	CO-5 Students will be able to acquire earning skills in tourism industry.
Course Outcomes T.Y.B.A.	
Geography of Disaster Management-I Gg. 310(A) CC 1E	CO-1 To introduce students the concept of Disaster and its relation with Geography.
	CO-2 To acquaint the students with the utility and application of Hazards in different areas and its management.
	CO-3 To make the students aware of the need of protection and Disaster management.
Geography of India-I Gg.320(A) DSE 1C	CO-1 To acquaint the students with Geography of our Nation.
	CO-2 To make the student aware of the magnitude of problems and prospects at National Level.
	CO-3 To help the students the inter relationship between the subject and the society.
	CO-4 To help the students to understand the recent trends in regional studies
Practical Geography-I Gg. 301(A) DSE 2C	CO-1 To introduce the basic concepts and techniques of Geographical Analysis.
	CO-2 To introduce the students with SOI Toposheets and acquire the knowledge of toposheet interpretation.
	CO-3 To introduce the students with Weather

	Maps and acquire the knowledge of its interpretation.
	CO-4 To introduce the students with Aerial Photographs and Satellite Images and acquire knowledge to interpret it.
	CO-5 To acquaint students with the spatial and structural characteristic of Practical Geography.
	CO-6 To explain the elementary and essential principles on field of practical work.
Research Methodology-I Value/Skill based course SEC 2C	CO-1 To develop the understanding of the basic concept of research.
	CO-2 To develop the understanding of the basic framework of sampling and data collection
	CO-3 To develop the understanding of various sampling methods and techniques.

Program Outcomes, Program Specific Outcomes and Course Outcomes

Department of Political Science

Bachelor of Arts (B.A.)	
Programme Outcomes	**F.Y.B.A.- Introduction to Indian Constitution (G-1)**
	PO-1. Students enable to understand the philosophy of Indian constitutions.
	PO- 2. Students enable to understand the various Government of Indian acts their provision andreforms.
	PO- 3. Students enable to know the salient features in making of Indian constitution.
	PO- 4. Students enable to appreciate the fundamental rights and duties and the directive principle ofstate policy Students enable to evaluate the evolution, functioning and consequences of political parties in India.
	PO- 5. Students enable to identify how electoral rules and procedure in India effect electionoutcomes.
	S.Y.B.A.- Introduction to Political Ideologies (G-2)
	PO- 1. Students enable to understand the nature and scope of political theory.
	PO- 2. Students enable to understand the significance of political theory.
	PO- 3. Students enable to acquaint with the theories, approaches, concepts and principles of politicaltheory.
	PO- 4. Students enable to evaluate the theories of origin of the state.
	T.Y.B.A.- Local Self Government in Maharashtra (G-3)
	PO- 1. Students enable to explain the Development of Local Self Government in British Era.
	PO- 2. Students enable to understand the contributions of various committees on local government.
	PO- 3. Students enable to describe the features and provisions of Indian Constitutional Amendmentacts regarding Local Government Institutions.
	PO- 4. Students enable to active Political participation and responsible leadership role in thefunctioning of Local Government Institutions.
Course Outcomes F.Y.B.A. (CBCS- 2019)	
F.Y.B.A.- Introduction to Indian Constitution	CO- 1. To acquaint students with the important features of the Constitution of India
	CO- 2. To explain students with the basic framework of Indian

(G-1)	government.
	CO- 3. To familiarize students with the working of the Constitution of India.
S.Y.B.A. (CBCS- 2019)	
S.Y.B.A.- Introduction to Political Ideologies **(G-2)**	CO- 1. To explain students with the role of different political ideologies and their impact inpolitics
	CO- 2. To acquaint students with the Close link between an idea and its actual realization inpublic policy
	CO- 3. To explain students with the Legacy of all the major ideologies
T.Y.B.A. (Pattern Regular- 2019)	
T.Y.B.A. - Local Self Government in Maharashtra (G-3)	CO- 1. To introduce the evolution of Local Self Government in Maharashtra.
	CO- 2. To make students aware about 73rd and 74th Constitutional Amendments.
	CO- 3. To introduce the students the structure of Local Self Government.
	CO- 4. To make students aware about composition, power and functions of local bodies.

Program Outcomes, Program Specific Outcomes and Course Outcomes

Department of Economics

Bachelor of Arts (B.A.)		
Programme Outcomes	**PO1.** To provide in depth knowledge of socio-economic aspects.	
	PO2. To familiarize with current and recent developments in Economics	
	PO3. To enrich knowledge through problem solving, hands-on activities projects.	
	PO4. To provide a broad and comprehensive knowledge in micro and macro Economics, Public Economics, Indian Economy and Agricultural Economics.	
	PO5. To develop analytical abilities towards real world problems	
Programme Specific Outcome	**PSO1** After completion of program, students will be able to have in-depth knowledge of basic concepts in Economics.	
	PSO2 A good academic background to be able to seek admission for master's degree in Economics	
	PSO3 An academic background to be able to crack the banning and administrative examinations	
Course Outcomes		
F.Y.B.A. G-I (CBCS-2019)	**G1- Indian Economy Problems & Prospects**	To make the students known about the various sectors of the economy in detail. To highlight the potential of the Indian economy to study the facts and figures about development.
S.Y.B.A. [G2] SEM-III/SEM-IV (CBCS-2019)	**Financial System-I/II**	1. To understand fundamentals of modern financial system.
		2. To understand the recent trends and developments in banking system.
		3. To understand the role of the Reserve Bank of India in Indian financial system.
		4. To provide the knowledge of various financial and non-financial institutions.
		5. To provide the students the intricacies of Indian financial system for better financial decision making.
S.Y.B.Com. SEM-III/SEM-IV (CBCS-2019)	**Business Economics (Macro)**	1. Understand the basic concepts of Macro Economics and Its application.
		2. Analyze the various concepts of Macro Economic Variables.
		3. Identify various difficulties in National Income Accounting.
		4. Explain the Theories of Output & Employment
		5. Discuss the Concepts of Consumption, Saving &

		Investment.
Programme Outcome		
T.Y.B.Com. (CBCS-2019) Semester- V	Indian & Global Economic Development-I	1. To develop ability to analyze economic development process of India. 2. To impart knowledge about the relevance of economic practices in modern competitive world. 3. To help the students develop a sound theoretical foundation for their future academic ventures.
T.Y.B.Com. (CBCS-2019) Semester- VI	Indian & Global Economic Development-I	1. To develop ability of students to analyze economic development process of India. 2.To acquaint the students with the knowledge of recent trends in Human Development Index. 3. To acquaint students with the emerging issues in policies of India's foreign trade. 4. To update the students about international institutions and organizations.
T.Y.B.A. (CBCS-2019) Semester- V	Indian Economic Development -I	The course will be useful for learners aiming towards careers in the government sector, policy analysis and the social sector. This course would take an overview of aspects of economic development with special reference to India. The course aims to introduce the learner to the main concepts in economic and human development, equip them compare and contrast different economies: recognize various indicators of economic and human development. The course will also provide a broad outline of the Sustainable Development Goals.
T.Y.B.A. (CBCS-2019) Semester- VI	Indian Economic Development -II	This course would take an overview of the process of Economic Planning and the Development Goals. The course aims to introduce the learner to the main concepts in Economic Planning, equip them with understanding of the planning process in India and changing in recent times and familiarize them to the Sustainable Development Goals. The Course also reviews the relation between Economic Development and Environment.
Course Outcome		
T.Y.B.Com. (CBCS-2019) Semester- V	Indian & Global Economic Development-I	1. Students will be able to understand present Economic Scenario of Indian Economy as well as World Economy. 2. Students will be able to understand the various aspects of development in Agricultural, Industrial and service sector in India. 3. Student will be able to critically evaluate the role of India in international economy. 4. Students will be able to evaluate the working of international financial organization and institutions.
T.Y.B.Com. (CBCS-2019) Semester- VI	Indian & Global Economic Development-II	1. Students will be able to understand the concept of Human Resource Development. 2. Students will be able to understand the role of foreign

		capital in Economic Development. 3. Students will be able to critically evaluate the Indian Foreign Trade Policy. 4. Students will be able to analyze the role of International Financial Institutions. 5. Students will be able to evaluate the success of Regional Economic Cooperation's.
T.Y.B.A. (CBCS-2019) Semester- V	Indian Economic Development -I	1. To relate and recognize the concept and indicators of Economic Development. 2. To describe and analyze the concept and indicators of Human Development. 3. To explain the characteristics of Developing and Developed Countries. 4. To describe the constraints to the process of Economic Development.
T.Y.B.A. (CBCS-2019) Semester- VI	Indian Economic Development -II	1. To describe and explain the process of Economic Planning. 2. To describe and examine the changing structure of planning process in India. 3. To describe and explain the relation between Economic Development and Environment.

Program Outcomes, Program Specific Outcomes and Course Outcomes

Department of History

Sr. No.	Program	Program Objectives	Program Specific Objectives
1	History	**History** 1. To enable the students to develop Knowledge, Understanding, Critical thinking, Practical skills, Interests and Attitudes relating to historical matters. 2. History aims at helping students to understand the present existing social, political, religious and economic conditions of the people, the development of the past & the religion, customs institutions, administration and soon. 3. History thus helps students to understand the present-day problems at regional, national and international level accurately and objectively. This understanding enables students to lead useful and efficient lives. 4. To creates interest as well as affection for reading historical figures, characters, events and facts which are found necessary for solving the present problems effectively. 5. The student would be able to acquire knowledge of various	1. To introduce innovative study techniques in the study of History *of Maratha to make it value based, conceptual and thought* provocative. To introduce international elements in the study of Marathas to facilitate comparative analysis of this history. To highlight the importance of past in exploration of present context. To understand the Socio –economic, cultural and political background of 17th century Maharashtra. To increase the spirit of healthy Nationalism & Secularism among the student. To encourage student s to for competitive examinations. To promote interest in the discipline of History. Suggesting the Importance of References. 2. The course is designed to help the student to know- History of freedom movement of India, aims, objectives problems and progress of Independent India. It aims at enabling the student to understand the processes of rise of modern India. The Course attempts to acquaint student with fundamental aspects of Modern Indian History. To explain the basic concepts/ concerns/ frame work of Indian History 3. To Survey the sources of History of Ancient India. The Course intends to provide an Understanding of the social, economic, religious and institutional bases of Ancient India. The course will study such as agriculture, Industry, trade. To study the development of the concept of Nation- State background of political history. To study ancient Indian Art & Architecture 4. The purpose of the course is to enable the students to study the history of modern

		terms, concepts, events, ideals, problems personalities and principles related to the study of history.	Maharashtra. To highlight the ideas, institutions, forces and movements that contributes to the modern Maharashtra. To acquaint the students with various interpretative perspectives. To introduce the student to the regional history within a broad national framework. 5. To help the student to know Modern World. To acquaint the student with the Socio-economic & Political developments in other countries. And understand the contemporary world in the light of its background History. 2. To orient the students with political history of Modern World. 3. To acquaint Students about the main developments in the Contemporary world (To understand to important development in 20th century World.) 4. Impart knowledge about world concepts. 5. To enable students to understand the economic transition in World during the 20thCentury. 6. Become aware of the principles, forces, processes and problems of the recent times. 7. To acquaint the students with growth of various political movements that helped the modern world. 8. To highlight the rise and growth of nationalism as a movement in different parts of the world. 9. To orients students about how history is studied, written and understood. 10. To explain methods and tools of data collection 11. To understand the meaning of Evolution of Historiography. 12. To study the Various Views of Historiography. 13. To study the approaches to Historiography. 14. To study the types of Indian Historiography. 15. To describe importance of inter-disciplinary research. 16. To introduce students to the basics of research. 17. To acquaint the student with the recent research in History. 18. Learn how to use sources in their presentation. 19. To acquaint Students about the rise and development of the USA as a world power.

			20. To acquaint Students about the main developments in the Contemporary World 21. To comprehend the socio-economic reforms in 1914 –1992. 22. To acquaint the students with the principles of foreign policy. 23. To orient the students with political history of Europe.

Courses offered

Sr. No.	Course	Course Outcomes
1	**B.A. History** **History General Paper No. 1** **Chh. Shivaji and His Times (1630 – 1707) (CBCS- 2019)**	Introduce innovative study techniques in the study of History *of Maratha to make Its value based, conceptual and thought* provocative. Introduce International Elements in the study of Marathas to facilitate comparative analysis of this history. Highlight the importance of past in exploration of present context. Understand the Socio –economic, cultural and political background of 17th century Maharashtra. Increase the spirit of healthy Nationalism & Secularism among the student. Encourage student s to for competitive examinations. promote interest in the Discipline of History. Suggesting the Importance of References.
2.	**S.Y.B.A. History** **History General Paper** **History Of Marathas (1630 – 1707) (CBCS- 2019)**	Introduce innovative study techniques in the study of History of Maratha to make It value based, conceptual and thought provocative. Introduce International Elements in the study of Marathas to facilitate comparative analysis of this history. Highlight the importance of past in exploration of present context. Understand the Socio –economic, cultural and political background of 17th century Maharashtra. Increase the spirit of healthy Nationalism & Secularism among the student. Encourage student s to for competitive examinations. Promote interest in the Discipline of History. Suggesting the Importance of References.
5	**T.Y.B.A. History** **History General Paper** **Indian National movement (1885 – 1947)**	Learning Objectives: 1. The course is designed to make the students aware about the making of Modern India and the struggle for independence. 2. To make the students aware of the multi-dimensionality of Modern India. 3. To highlight the ideas, institutions, forces and movements that contributed to be shaping

		of Indian Modernity 4. To acquaint the students with various interpretative perspectives. Learning Outcomes: 1. It will enable students to develop an overall understanding of Modern India. Introduce innovative study techniques in the study of History of Modern India to make It value based, conceptual and thought provocative. 2. It will increase the spirit of healthy Nationalism, Democratic Values and Secularism among the Students. 3. Students will understand various aspects of the Indian Independence Movement and the creation of Modern India. 4. Increase the spirit of healthy Nationalism & Secularism among the student. 5. Encourage student s to for competitive examinations. promote interest in the Discipline of History. Suggesting the Importance of References 6 Highlight the importance of past in exploration of present context. understand the Socio –economic, cultural and political background of 18th century India.

Program Outcomes, Program Specific Outcomes and Course Outcomes

Department of Commerce

Programme: B. Com.		
	Programme Outcome	PO-1 To develops the required knowledge, skills, and attitudes for the handling of Trade, Commerce and Industry.
		PO-2 To meet the growing needs of the business society.
		PO-3 The Commerce education is dedicated to developing tomorrow's leaders, managers, and professionals.
	Programme Specific Outcome	PSO-1 To imparting commerce education needs to be more dynamic to incorporate all local and global changes in the field of trade and commerce.
		PSO-2 To focus on student centric learning methods, which include use of Information and Communication Technology.
		PSO-3 To innovative methods of teaching and learning and emphasis on industry interaction to enable the learners to take up professional challenges more effectively.
Class	Course	Outcome
F.Y. B.Com. Sem. -I	Financial Accounting -I Course Code - 112	CO- 1 To impart knowledge of basic accounting concepts.
		CO-2 To create awareness about application of these concepts in business world.
		CO-3 To impart skills regarding Computerized Accounting.
		CO-4 To impart knowledge regarding finalization of accounts of various establishments.
	Computer Concept and Application -I Course Code-114-B	CO-1 To make the students familiar with Computer environment.
		CO-2 To make the students familiar with the basics of Operating System.
		CO-3 To Understand various business communication tools.
		CO-4 To make awareness among students about applications of Internet in Commerce.

	Banking & Finance - I Course Code -115- B	CO-1 To provide knowledge of fundamentals of Banking
		CO-2 To create awareness about various banking concepts
		CO-3 To conceptualize banking operations.
	Marketing & Salesmanship -I Course Code-116-C	CO-1 To introduce the basic concepts in Marketing.
		CO-2 To give the insight of the basic knowledge of Market Segmentation and Marketing Mix
		CO-3 To impart knowledge on Product and Price Mix.
	Business Environment and Entrepreneurship- I Course Code-116-E	CO-1 To understand the concept of Business Environment and its aspects.
		CO-2 To make students aware about the Business Environment issues and problems of Growth
		CO-3 To examine personality competencies most common to majority of successful entrepreneurs and to show how these competencies can be developed or acquired
		CO-4 To understand the difference between Entrepreneurial and non-Entrepreneurial behavior
Sem.-II	Financial Accounting-II Course Code - 122	CO-1 To impart knowledge of various software used in accounting.
		CO-2 To impart knowledge about final accounts of charitable trusts.
		CO-3 To impart knowledge about valuation of intangible assets.
		CO-4 To impart knowledge about accounting for leases.
	Computer Concept and Application-II Course Code-124 - B	CO-1 To make the students familiar with cyber related issues.
		CO-2 To provide knowledge about website development.
		CO-3 To make the students familiar with basics of Network, Internet and related concepts.
		CO-4 To make awareness among students about applications of Internet in Commerce.
	Banking & Finance-II Course Code-125- B	CO-1 To develop the working capability of students in banking sector.
		CO-2 To Make the Students aware of Banking Business and practices.
		CO-3 To enlighten the students regarding the new concepts introduced in the banking system
	Marketing & Salesmanship- II	CO-1 To introduce the concept of Salesmanship.
		CO-2 To give insight about various techniques

	Course Code-126-C	required for the salesman.
		CO-3 To inculcate the importance of Rural Marketing.
		CO-4 To acquaint the students with recent trends in marketing and social media marketing.
	Business Environment and Entrepreneurship – II Course Code – 126-E	CO-1 Understanding the difference between entrepreneurial and non-entrepreneurial, personality
		CO-2 Providing knowledge and significance of entrepreneurship Skill-Realizing role of entrepreneurship in economy
		CO-3 Gaining knowledge of various institutions promoting entrepreneurship Skill-Acquaintance with these institution
S.Y.B.Com. Sem. - III	Business Communication-I Course Code-231	CO-1 To understand the concept, process and importance of communication.
		CO-2 To acquire and develop good communication skills requisite for business correspondence.
		CO-3 To develop awareness regarding new trends in business communication.
		CO-4 To provide knowledge of various media of communication.
	Corporate Accounting -I Course Code -232	CO-1 To acquaint the student with knowledge about various Concepts, Objectives and applicability of some important accounting standards associated with to corporate accounting.
		CO-2. To develop understanding among the students on the difference between commencement and incorporation of a company and the accounting treatment for transactions during the two phases.
		CO-3 To update the students with knowledge for preparation of final accounts of a company as per Schedule III of the Companies Act 2013
		CO-4 To empower to students with skills to interpret the financial statements in simple and summarized manner for effective decision-making process.
	Business Management -I Course Code- 234	CO-1 To provide basic knowledge and understanding about various concepts of Business Management.
		CO-2 To help the students to develop cognizance of the importance of management principles.
		CO-3 To provide an understanding about various functions of management.
		CO-4 To provide them tools and techniques to be used in the performance of the managerial job.
	Element of Company Law-I Course Code-235	CO-1 To develop general awareness of Elements of Company Law among the students.

		CO- 2 To understand the Companies Act 2013 and its provisions.
		CO-3 To have a comprehensive understanding about the existing law on formation of new company in India.
		CO-3 To have a comprehensive understanding about the existing law on formation of new company in India.
	Banking & Finance -I Course Code-236- B	CO-1 To provide the knowledge about Indian Banking System.
		CO-2 To create the awareness about the role of banking in economic development.
		CO- 3 To provide the knowledge about working of Central Banking in India.
		CO- 4 To know the functioning of private and public sector banking in India
	Marketing Management-I Course Code -236- H	CO-1 To introduce the concept of Marketing Management.
		CO-2 To give the students the basic knowledge of Marketing Management to be a successful modern marketer.
		CO-3 To inculcate knowledge of various aspects of marketing management through practical approach.
		CO-4 To interpret the issues in marketing and their solutions by using relevant theories of marketing management.
Sem. - IV	Business Communication -II Course Code- 231	CO-1 To understand the concept, process and importance of communication.
		CO-2 To acquire and develop good communication skills requisite for business correspondence.
		CO-3 To develop awareness regarding new trends in business communication.
		CO-4 To provide knowledge of various media of communication
	Corporate Accounting- II Course Code -232	CO-1 To acquaint the student with knowledge of corporate policies of investment for expansion and growth through purchase of stake in or absorption of smaller units.
		CO-2 To develop the knowledge among the student about consolidation of financial statement with the process of holding.
		CO-3 To update the students with knowledge of the process of liquidation of a company
		CO-4 To introduce the students with the recent trends in the field of accountancy
	Business Management -II Course Code-234	CO-1 Skills regarding how to motivate staff and other members of the team.

		CO-2 Skills regarding retaining motivational level
		CO-3 Understanding needs and expectations of group members and meeting them effectively
		CO-4 Understanding followers and their views on various organizational matters
	Element of Company Law- II Course Code-235	CO-1 To develop general awareness among the students about management of company
		CO-2 To have a comprehensive understanding about Key managerial Personnel of company and their role in Company administration.
		CO-3 To acquaint the students about E Governance and E Filling under the Companies Act, 2013.
		CO-4 To equip the students about the various meetings of Companies and their importance.
	Banking & Finance – II Course Code -236- B	CO-1 To provide the knowledge of Cooperative Banking in India
		CO-2 To analyze the functioning of Development Banking
		CO-3 To create the awareness about Banking Sector Reforms
	Marketing Management - II Course Code -236- H	CO-1 To create awareness and impart knowledge about the basics of Marketing Management which is the basic foundation of Marketing subject.
		CO-2 To orient the students in recent trends in marketing management.
		CO-3 To understand the concept of Green Marketing.
		CO-4 To enable students to apply this knowledge in practical by enhancing their skills in the field of Marketing.
T.Y. B.Com. Sem.- V	Business Regulatory Framework-I Course Code-351	CO-1 To provide conceptual knowledge about the framework of business Law in India.
		CO-2 To orient the students about the legal aspect of business.
		CO-3 To create awareness among the students about legal environment relating to the Contract Law, Partnership Act, Sale of Goods Act in India.
		CO-4 To understand the emerging issues relating to e-commerce, e-transaction issues and E
	Advanced Accounting -I Course Code-352	CO-1 To acquaint the student with knowledge about various concepts, objectives, and applicability of some important accounting standards.
		CO-2 To develop the knowledge among the students about reorganization of business regarding restructuring the capital.
		CO-3 To update the students with knowledge for preparation of final accounts of a Banking Companies with the provisions of Banking

		Regulation Act 1949.
		CO-4 To empower to students with skills to prepare the investment account in simple and summarized manner
	Auditing & Taxation-I Course Code- 354	CO-1 To acquaint themselves about the Definition, Nature, Objectives and Advantages of Auditing, Types of Audits, Errors and Fraud, Audit Program, Notebook, Working Paper, Internal Control, Check.
		CO-2 To get knowledge about concept of Checking, Vouching, Verification and Valuation, Types of Audit Report and Auditing Assurance Standard.
		CO-3 To understand the provision related Qualification, Disqualification, Appointment, Removal, Rights, Duties and Liability of Company Auditor and Provisions regarding Tax Audit as per Income Tax Act 1961 (Section 44 AA to 44AE).
		CO-4 To know the various new concepts in computerized system and Forensic Audit
	Banking & Finance Course Code -365-B Special Paper - II Financial Markets and Institutions in India - II	CO-1 To acquaint the students with Indian Financial System and its various segments.
		CO-2 To make the students aware about Indian Money Market.
		CO-3 To analyze and understand the functions of Indian Capital Market.
		CO-4 To enable the students the functioning of Foreign Exchange Market
	Marketing Management-II Course Code -355(h)	CO-1 The objective of this course is to facilitate understanding of the conceptual framework of marketing.
		CO-2 To develop the skill among students to use marketing applications in decision making under various environmental constraints.
		CO-3 The course will make learners understand how to make effective marketing decisions, including assessing marketing opportunities and developing marketing strategies and implementation plans
	Banking and Finance- Special Paper III Course Code-356 B	CO-1 To familiarize the Banking Laws and Practice in correlation to the Banking System in India.
		CO-2 To understand the legal aspects of Banking transactions and its implication as a Banker and as a customer.
		CO-3 To familiarize the students with the Banking Laws and Practices in India.
		CO-4 To make students capable of understanding and applying the legal and practical aspects of banking to help them technically sound in banking parlance
	Marketing Management	CO-1 To introduce the concept of advertising and

	–III Course Code: 356(H)	advertising media.
		CO-2 To provide the students the knowledge about appeals and approaches in advertisement.
		CO-3 To acquaint the students to the economic, social and regulatory aspects of advertising.
		CO-4 To make the student understand the role of Brand Management in marketing.
Sem. -VI	Business Regulatory Framework -II Course Code - 361	CO-1 To develop general awareness of Business Law among the students.
		CO-2 To understand the various statutes containing regulatory mechanism of business and its relevant provisions including different types of partnerships.
		CO-3 To acquaint the students on relevant developments in business laws to keep them updated.
		CO-4 To enhance capacity of learners to seek the career opportunity in corporate sector and as a business person.
	Advanced Accounting -II Course Code-362	CO-1 To acquaint the student with knowledge about the legal provisions regarding preparation and presentation of final accounts of Co-operative Societies.
		CO-2 To empower to students about the branch accounting in simple.
		Advanced Accounting-II Course Code - 362
		CO-4 To understand the procedure and methods of analysis of financial statements.
	Auditing & Taxation-II Course Code: 364	CO-1 To understand the basic concepts of Income Tax Act, 1961 and create awareness of direct taxation among the students.
		CO-2 To understand the income tax rules and regulations and its provisions.
		CO-3 To have a comprehensive knowledge of calculation various types of income.
		CO-4 To know the recent changes made by the finance bill (Act) every year and its impact on taxation of person.
		CO-5 To acquaint the students on Income tax department portal (ITD), e-filing and e-services mechanism relating to Assessee.
	Banking & Finance Course Code-365-B Special Paper - II Financial Markets and Institutions in India – II	CO-1 To familiarizes students about various basic concepts of stock market.
		CO-2 To analyze the types and process of stock trading.
		CO-3 To enable the students to understand the functions and working of Non -Banking Financial Institutions in India.
		CO-4 To enable the students to acquire sound knowledge of Regulatory Bodies in India.

	Marketing Management – II Course Code – 365 h	CO-1 The primary purpose of this course is to brief students about agricultural marketing.
		CO-2 To enable the students to know various marketing regulations, importance of global marketing and various measures used by cyber security marketers in today's digital world.
	Banking and Finance-Special Paper III Course Code -366 B	CO-1 To familiarize students about concept and types cybercrimes in banking.
		CO-2 To understand the aspects of paying and collecting banker.
		CO-3 To analyze the banker and customers relationship.
		CO-4 To enable the students to apply the legal and practical aspects of bank advances.
	Marketing Management – III Course Code: 366(H)	CO-1 To introduce the concept of Marketing of Service.
		CO-2 To provide the students the knowledge of Creative Advertisements.
		CO-3 To acquaint the students to various social media marketing.
		CO-4 To make the student understand the technique and process of Marketing Control and Audit.
		CO-5 To enable the students to apply this knowledge in practicality by enhancing their skills in the field of advertising.

Programme: M. Com.		
	Programme Outcome	PO-1 To equip and train Post Graduate students to accept the challenges of business world by providing opportunities for study and analysis of advanced commercial and business methods and processes. PO-2 To develop independent logical thinking and facilitate personality development.
	Programme Specific Outcome	PSO-1 To acquaint students with significance of research in business. PSO-2 To impart skills regarding methods of data collection and their interpretations. PSO-3 To develop communication and analytical skills among students.

Class	Course	Outcome
M.Com.-I Semester-I	Management Accounting 101	CO-1 To enhance the abilities of learners to analyze the financial statements.
		CO-2 To enable the learners to understand, develop and apply the techniques of management accounting in the financial decision making in the business corporate
	Strategic Management 102	CO-1 To introduce the students to the emerging changes in the modern business environment
		CO-2 To develop the analytical, technical and managerial skills of students in the various areas of Business Administration
		CO-3 To empower to students with necessary skill to become effective future managers and leaders
		CO-4 To develop technical skills among the students for designing and developing effective Functional strategies for growth and sustainability of business
	Business Administration Special Paper I Subject Title: - Production & Operation Management 113	CO-1 To understand and develop deep insight of Production & Operation Management.
		CO-2 To understand & identity business problems involving operational function, planning and control, design development and quality management.
	Business Administration Special Paper II Subject Title: - Financial Management 114	CO-1 To acquaint the student with knowledge of various Financial Management terminologies
		CO-2 To understand the concepts relating to Financing & Financial Statement Analysis
		CO-3 To utilize the information gathered to reach an optimum conclusion by a process of reasoning
Semester-II	Financial Analysis & Control	CO-1 To enable the students to acquire knowledge of financial analysis and control tools
		CO-2 To Make appropriate application and uses of

	201	financial analysis and control
		CO-3 To gain knowledge of practically comparing financial results of different years and different Companies
	Industrial Economics 202 A	CO-1 To provide the knowledge to the students about the basic issues of industrial economics.
		CO-2 To make aware the students about the industrial profile of India and the industrial policy of government of India.
		CO-3 To impart students' knowledge about sources of industrial finance and Indian industrial growth
	Business Ethics & Professional Values 213	CO-1To raise the student's general awareness on the ethical dilemmas at workplace
		CO-2 To investigate whether ethics set any boundaries on competition, marketing, sales and advertising
		CO-3 To prepare students to play a constructive role in improving the sustainable development with which they may become involved
	Elements of Knowledge Management 214	CO-1 To develop Analytical and Research oriented skills among the students.
		CO-2 To promote research and innovation ideas based on Knowledge Management.
		CO-3 To enhance knowledge level and practice of linking theoretical background with applied Social Science.
M.Com.-II Semester-III	Business Finance 301	CO-1 To acquaint the students with corporate finance required for Indian Industries.
		CO-2 To acquaint the students with corporate finance required for Indian Industries.
		CO-3 To give detail exposure of working capital management practice of finance to students Skills to be developed.
	Research Methodology	CO-1 To acquaint the students with the areas of

	for Business 302	Business Research Activities
		CO-2 To enable students in developing the most appropriate methodology for their research studies
		CO-3 To make them familiar with the art of using different research methods and techniques
	Human Resource Management 313	CO-1 To understand the basic concepts of Human Resource Management and changing role of HRM in business.
		CO-2 To expose the students to the concept, significance and uses of the concepts like Retirement/ Retrenchment Strategies and Recent Trends in HRM
		CO-3 To understand the E-HR and recent trends in Human Resource management.
	Organizational Behaviour 314	CO-1To make the students understand various concepts of organization behaviour
		CO-2 To provide in depth knowledge about process of formation of group behaviour in an organization set up
		CO-3 To understand the concept of stress and conflict and effects of work culture
Semester IV	Capital Market and Financial Services 401	CO-1 To make the students aware about the latest developments in the field of capital market in India.
		CO-2 To enable the students to understand various transactions in stock exchanges and agencies involved in it.
		CO-3 To acquaint the students with working of capital market.
	Industrial Economic Environment 402	CO-1To provide knowledge about basic issues in Industrial Economic Environment to students.
		CO-2 To study the progress and current problems of major industries in India.
		CO-3 To make students aware about Industrial pattern and growth in India and Industrial policies of India

		since independence.
	Recent Advances in Business Administration 413	CO-1 To familiarize the students with the recent advancements in business administration
		CO-2 To expose the students to the concept, Innovation Management
		CO-3 To impart adequate knowledge and analytical of cross-cultural Management.

Program Outcomes, Program Specific Outcomes and Course Outcomes

Department of Chemistry

BACHELOR OF SCIENCE	
PROGRAMME: B.Sc. Chemistry	
Programme Outcomes	PO-1. Solve the problem and also think methodically, independently & draw logical conclusion.
	PO-2. Use modern techniques, decent equipments & chemistry software.
	PO-3. Find out the green root for chemical reaction for sustainable development.
	PO-4. Employ critical thinking &specific knowledge to design, carry out, record & analyze results of chemical reactions.
Program Specific Outcomes	PSO-1. Understand good laboratory practices & safety.
	PSO-2. Identify chemical formulae & solve numerical problems.
	PSO-3. To explain nomenclature, stereochemistry, structure, reactivity & mechanisms of chemical reactions.
	PSO-4. Use modern chemical tools, models, charts & equipment's.
	PSO-5. Gain the knowledge of chemistry through theory & practicals.
	PSO-6. Make aware & handle the sophisticated instruments/ equipment's.
Course Outcomes F.Y.B.Sc. (CBCS- 2019)	
CH-101: Physical Chemistry	CO-1. Students will be able to apply thermodynamic principles to physical and chemical process.
	CO-2. Third law of thermodynamic and its applications.
	CO-3. Calculations of enthalpy, Bond energy, Bond dissociation energy.
	CO-4. Students will able to understand Relation between Free energy and equilibrium and factors affecting on equilibrium constant.
	CO-5. Students will able to understand Exergonic and endergonic reaction
	CO-6. Students will able to understand Concept of ionization process occurred in acids, bases and pH scale.
	CO-7. Degree of hydrolysis and pH for different salts, buffer solutions
CH- 102: Organic Chemistry	CO-1. The students are able to understand the fundamentals, principles, and recent developments in the chemistry.
	CO-2. Students are familiarizing with current and recent developments in Chemistry.

	CO-3. Students will able to understand stereochemistry related concept.
	CO-4. Students will able to understand the difference between alkane, alkene, and alkynes.
CH- 103: Chemistry Practical	CO-1. Students will learn the chemical safety while performing experiments in laboratory.
	CO-2. Students will able to learn the thermochemical parameters and related concept.
	CO-3. Students will learn the techniques of pH measurements.
	CO-4. Students will able to learn the elemental analysis of organic compounds.
	CO-5. Students will able to learn the process of Preparation of buffer solutions
CH-201: Inorganic Chemistry	CO-1. Students will Learns the Various theories and principles applied to revel atomic structure.
	CO-2. Students will able to understand structure of hydrogen atom.
	CO-3. Students will learn the Shapes of orbitals.
	CO-4. Students will define various types of chemical bonds- Ionic, covalent, coordinate and metallic bond
	CO-5. Students will define Fajan's rule, bond moment, dipole moment and percent ionic character.
	CO-6. Students will able to discuss electronic configuration of an atom and anomalous electronic configurations
CH-202: Analytical Chemistry	CO-1. Students will define term mole, mill mole, molar concentration, molar equilibrium concentration and Percent Concentration.
	CO-2. Students will able to understand the relation between molecular formula and empirical formula
	CO-3. Basics of chromatography and types of chromatography
	CO-4. Students will able to learn Separation techniques of binary mixtures and analysis
	CO-5. Students are able to understand measurement and working of pH meter
CH-203: Chemistry Practical –II	CO-1. The practical course is in relevance to the theory courses to improve the Understanding of the concepts.
	CO-2. It would help in development of practical skills of the students.
	CO-3. Use of microscale techniques wherever required
S.Y.B.Sc. (CBCS- 2019)	
CH-301: Physical and Analytical Chemistry	CO-1. Student will able to- Define / Explain concept of kinetics, terms used, rate laws, molecularity, order.
	CO-2. Determines the order of reaction by integrated rate equation method, graphical method, half-life method and differential method.
	CO-3. Students will able to define, explain and compare meaning of accuracy and precision
	CO-4. Students will able to Apply the methods of expressing the errors in analysis from results.
	CO-5. Students will able to Explain / discuss different terms related to

	errors in quantitative analysis.
CH-302: Inorganic and Organic Chemistry	CO-1. Students will able to define terms related to molecular orbital theory (AO, MO, sigma bond, pi bond, bond order, magnetic property of molecules, etc).
	CO-2. Student will able to Draw and explain MO energy level diagrams for homo and hetero diatomic molecules. Explain bond order and magnetic property of molecule.
	CO-3. Student will able to Define different terms related to the coordination chemistry (double salt, coordination compounds, coordinate bond, ligand, central metal ion, complex ion, coordination number, magnetic moment, crystal field stabilization energy, types of ligands, chelate effect, etc.)
	CO-4. Students will able to Apply IUPAC nomenclature to coordination compound
	CO-5. Students will able to Identify and draw the structures aromatic hydrocarbons from their names or from structure name can be assigned.
CH-303: Chemistry Practical - III	CO-1. Students will able to verify theoretical Principles experimentally
	CO-2. Students will able to Correlate theory to experiments.
	CO-3. Students will able to Understand systematic methods of identification of substance by chemical methods.
	Co-4. Students will able to write balanced equation for the chemical reactions performed in the laboratory.
	CO-5. Students will understand/verify theoretical principles by experiment observations; explain practical output / data with the help of theory.
CH-401: Physical and Analytical Chemistry	CO-1. Define the terms in phase equilibria such as- system, phase in system, components in system, degree of freedom, one / two component system, phase rule, etc.
	CO-2. Explain meaning and Types of equilibrium such as true or static, metastable and unstable equilibrium.
	CO-3. Explain distillation of liquid solutions from temperature – composition diagram.
	Co-4. Explain / discuss azeotropes, Lever rule, Henrys law and its application.
	CO-5. Explain / discuss conductometric titrations.
	CO-6. Apply conductometric methods of analysis to real problem in analytical laboratory.
	CO-7. Explain construction and working of colorimeter.
CH-402: Inorganic and Organic Chemistry	CO-1. Student will able to- Isomerism in coordination complexes
	CO-2. Explain different types of isomerism in coordination complexes
	CO-3. Explain / discuss limitation of VBT.
	Co-4. Calculate field stabilization energy and magnetic moment for various complexes.
	CO-5. Explain: i) strong field and weak field ligand approach in Oh complexes ii) Magnetic properties of coordination compounds on the

	basis of weak and strong ligand field ligand concept
	CO-6. Perform inter conversion of functional groups.
	CO-7. Explain / discuss synthesis of carboxylic acids and their derivatives
	CO-8. Draw structures of different conformations of methyl / t-butyl monosubstituted cyclohexane (axial, equatorial) and 1, 2 dimethyl cyclohexane.
CH-403: Chemistry Practical - IV	CO-1. Interpret the experimental data on the basis of theoretical principles.
	CO-2. Correlate the theory to the experiments. Understand / verify theoretical principles by experiment or explain practical output with the help of theory.
	CO-3. Write balanced equation for all the chemical reactions performed in the laboratory.
	Co-4. Perform organic and inorganic synthesis and able to follow the progress of the chemical reaction.
	CO-5. Perform the quantitative chemical analysis of substances and able to explain principles behind it.
	CO-6. Set up the apparatus properly for the designed experiments.
	CO-7. Verify theoretical principles experimentally.
Course Outcome T.Y.B.Sc. (CBCS -2019)	
DSEC-I: CH-501: Physical Chemistry- I	CO-1. Students should understand and explain the differences between classical and quantum mechanics.
	CO-2. Students Should be able to explain De Broglie hypothesis and the uncertainty principle.
	CO-3. Students should know the Classification of molecules on the basis of moment of Inertia.
	CO-4 Students should be able to explain the difference between Rayleigh, Stokes and anti-Stokes lines in a Raman spectrum.
	CO-5. Students should be able to difference between thermal and photochemical processes.
	CO-6. Students should know Quantum yield and reasons for high and low quantum yield,
DSEC-I: CH: 502: Analytical Chemistry-I	CO-1. Students should be able to Define basic terms in gravimetry, spectrophotometry, qualitative analysis and parameters in instrumental analysis.
	CO-2. Explain different principles involved in the gravimetry, spectrophotometry, parameters in instrumental analysis, qualitative analysis.
	CO-3. Students should be able to differentiate / distinguish / compare among the different analytical terms, process and analytical methods.
	CO-4. Apply whatever theoretical principles he has studied in theory during practical session in laboratory.
DSEC-I: CH-503: Physical Chemistry Practical – I	CO-1. Student should be able to determine specific refractivity of the liquid.

	CO-2. Student should be able to determine concentration of the complex through Spectrophotometry and Colorimetry.
	CO-3. Student should be able to determine conductance of a liquid by using Conductometry.
	CO-4. Student should be able to determine viscosity of liquid by using Ostwald Viscometer.
	CO-5. Student should know the principle Photoflurometry.
DSEC-I: CH-504: Inorganic Chemistry – I	CO-1. Students should know electroneutrality principle and different types of pi bonding.
	CO-2. Explain MOT of Octahedral complexes with sigma bonding.
	CO-3. Students should able to explain Charge Transfer Spectra.
	CO-4. Students should able to compare the different approaches to bonding in Coordination compounds.
	CO-5. Students should know nuclear fuels and their applications.
	CO-6. The difference between metal, semiconductor and insulator.
DSEC-II: CH-505: Industrial Chemistry – I	CO-1. Knowledge of various industrial aspects.
	CO-2. They should also know the physico-chemical principals involved in manufacturing process.
	CO-3. Importance of sugar industry.
	CO-4 Manufacturing of ethyl alcohol by using molasses and fruit juice.
	CO-5. Synthesis, Structures, properties and applications of dyes
DSEC-II: CH-506 Inorganic Chemistry Practical	CO-1. Understood the gravimetric estimation of Fe as Fe_2O_3
	CO-2. Analyze the sodium bicarbonate from the binary mixture.
	CO-3. Analyze the Cation and Anion from the mixture.
	CO-4. Understood the gravimetric estimation of Ba as $BaSO_4$
DSEC-III: CH-507: Organic Chemistry – I	CO-1. Student Should define and classify polynuclear and heteronuclear aromatic hydrocarbons.
	CO-2. Student should be able to write structure and synthesis of polynuclear and heteronuclear aromatic hydrocarbons.
	CO-3. Student should know Synthetic applications ethyl acetoacetate and malonic ester.
	CO-4. Student should identify different types of intermediate in rearrangement reactions.
	CO-5. Student should understand stereochemistry by using models and learn reactivity of geometrical isomers.
	CO-6. Student should know effect of factors on the rate elimination reactions.
DSEC-III: CH-508: Chemistry of Biomolecules	CO-1. The types of lipids with examples, structure of lipids, properties of lipids.
	CO-2. Effect of pH on structure of amino acid, Determination of N and C terminus of peptide chain.
	CO-3. Enzyme specificity, Equations of enzyme kinetics Km and its significance, features of various types of enzyme inhibitions, industrial applications of enzymes.
	CO-4. The types of carbohydrates and their biochemical significance in

	living organisms, structure of carbohydrates and reactions of carbohydrates with Glucose as example.
CH-509: Organic Chemistry Practical-I	CO-1. Students should be able to perform the quantitative chemical analysis of binary mixture, explain principles behind it.
	CO-2. Students should be able understand the techniques involving drying and recrystallization by various method.
	CO-3. Students will be familiar to the test involving identification of special elements.
	CO-4. Students should be able learn the confirmatory test for various functional groups.
	CO-5. Students should be able to synthesis of various organic compounds through greener approach.
	CO-6. Students will be expertise in the various techniques of preparation and analysis of organic substances.
	CO-7. Students should be able understand principle of Thin Layer Chromatographic techniques.
	CO-8. Students should be able understand the purification technique used in organic chemistry.
CH-510 (B) Polymer Chemistry	CO-1. History of polymers.
	CO-2. Difference between simple compounds and polymer.
	CO-3. Names of polymers.
	CO-4 Various ways of nomenclature
	CO-5. Terms-Monomer, Polymer, Polymerization, Degree of polymerization, Functionality, Number average, Weight average molecular weight.
CH-511 (A): Environmental Chemistry	CO-1. Students should understand the importance and conservation of environment.
	CO-2. Students should be able to explain the importance of biogeochemical cycles.
	CO-3. Students should know the different Water resources.
	CO-4. Students should be able to understand the Hydrological Cycle.
	CO-5. Students should learn different organic and inorganic pollutants.
	CO-6. Students should identify different water quality parameters.
DSEC-IV: CH-601: Physical Chemistry-II	CO-1. Student should know thermodynamic conditions of reversible cell, Explanations of reversible and irreversible electrochemical cell with suitable example.
	CO-2. Student should know EMF of electrochemical cell and its measurement.
	CO-3. Student should be able to distinguish between crystalline and amorphous solids / anisotropic and isotropic solids.
	CO-4. Student should understand methods of Crystal structure analysis: The Laue method and Braggs method: Derivation of Bragg's equation.
	CO-5. Student should know types and properties of radiations: alpha, beta and gamma.
	CO-6. Student should know application of radioisotopes as a tracer: Chemical investigation- Esterification, Friedel -Craft reaction and

	structure determination w.r.t PCl_5, Age determination use of tritium and C^{14} dating.
CH-602: Physical Chemistry-III	CO-1. Meaning of the terms-Solution, electrolytes, nonelectrolytes and colligative properties,
	CO-2. Students are expected to know Factors affecting on solid state reactions, Rate laws for reactions in solid state
	CO-3. Students should know Cohesive Energy of ionic crystals based on coulomb's law and Born Haber Cycle.
	CO-4. Students are expected to know History of polymers, Classification of polymers, Chemical bonding & Molecular forces in Polymer, Molecular weight of polymers.
DSEC-IV: CH-603: Physical Chemistry Practical-II	CO-1. Student should be able to determine emf of liquid by using Potentiometry.
	CO-2. Student should know the principle of pH metry.
	CO-3. Student should know the principle and operation of G M Counter.
	CO-4. Student should know the principle and operation of G M Counter.
	CO-5. Student should know the Colligative properties.
	CO-6. Student should know the principle of Turbidometry.
CH-604: Inorganic Chemistry –II	CO-1. Students should be able to understand M-C bond and to define organometallic compounds.
	CO-2. To know methods of synthesis of binary metal carbonyls.
	CO-3. A student should be able to Understand the phenomenon of catalysis, its basic principles and terminologies.
	CO-4. A student should identify the biological role of inorganic ions & compounds.
	CO-5. A student should be able to draw the structure of Vit.B_{12} and give its metabolism.
	CO-6. A student should understand Preparation of inorganic solids by various methods.
DSEC-V: CH-605: Inorganic Chemistry -III	CO-1. How acid and base strengths get affected in non-aqueous solvents.
	CO-2. Draw the simple cubic, BCC and FCC structures.
	CO-3. Be able to solve simple problems based on Born- Haber cycle.
	CO-4. Different Zeolite Framework Types and their classification.
	CO-5. Various methods of nanoparticle synthesis.
	CO-6. To know toxic chemical in the environment.
	CO-7. To know the biochemical effect of Arsenic, Cd, Pb, Hg.
CH-606 Inorganic Chemistry Practical	CO-1. Understood the Phosphate from fertilizer.
	CO-2. Analyze the Calcium from milk powder.
	CO-3. Analyze the Strength of medicinal H_2O_2.
	CO-4. Analyze the Na by flame photometry
	CO-5. Analyze the K by flame photometry
DSEC-VI: CH-607: Organic	CO-1. Students will learn the principle of mass spectroscopy, its

Chemistry-II	instrumentation and nature of mass spectrum.
	CO-2. Students will understand the principle of IR spectroscopy, types of vibrations and the nature of IR spectrum.
	CO-3. Students will understand the principle of NMR spectroscopy and will understand various terms used in NMR spectroscopy. They will learn measurement of chemical shift and coupling constants.
	CO-4. Students will be able to interpret the NMR data and they will be able to use it for determination of structure of organic compounds.
	CO-5. Student should know the geometrical isomerism in disubstituted cyclohexane's.
	CO-6. Student should know the stability of geometrical isomers of decalin.
DSEC-VI: CH-608: Organic Chemistry-III	CO-1. Meaning of terms Disconnection, Synthons, Synthetic equivalence, Functional Group Interconversion, Target Molecule
	CO-2. To write mechanism of some named rearrangement reactions.
	CO-3. Understand the difference between carbocation & carbanion.
	CO-4. Synthesis of Citral and Ephedrin by Barbier- Bouveault and Nagi methods, respectively.
	CO-5. Synthetic applications some reagents.
	CO-6. Various methods of isolation/extraction of these natural products.
	CO-7. To determine the structure of above compounds by chemical methods.
CH-609: Organic Chemistry Practical-II	CO-1. Students should be able to identify the functional group or groups present in a compound.
	CO-2. Students should be able to understand use NMR spectra to determine the structures of compounds.
	CO-3. Students should be able to calculate coupling constants from 1 H NMR spectra.
	CO-4. Students should be able to achieve the practical skills required to estimations of glucose and glycine and saponification value of oil.
	CO-5. Students should be able to determine the molecular weight of given tribasic acids.
	CO-6. Students should be able to apply the principles of extraction.
	CO-7. Students should be able to describe the extraction separation process.
	CO-8. Students should be able to explain the processes of a chromatography analysis.
	CO-9. Students should be able to realize the selection of appropriate mobile phase, column and detector.
CH-610 (A): Chemistry of Soil and Agrochemicals	CO-1. Understood various components of soil and soil properties and their impact on plant growth.
	CO-2. Understood the classification of the soil.
	CO-3 Got experience on advanced analytical and instrumentation methods in the estimation of soil.
	CO-4 Proper understanding of chemistry of pesticides will be inculcated among the students.

	CO-5. Imparts knowledge on different pesticides, their nature and, mode of action and their fate in soil so as to monitor their effect on the environment.
CH-611(A): Analytical Chemistry-II	CO-1. Students should be able to define basic terms in solvent extraction.
	CO-2. Students should be able to identify important parameters in analytical processes or estimations.
	CO-3. Students should be able to explain different principles involved in the analyses using solvent extraction, basics of instrumental chromatography, HPLC, GC, and atomic spectroscopic techniques.
	CO-4. Students should be able to perform quantitative calculations depending upon equations students have studied in the theory.
	CO-5. Students should be able to discuss / describe procedure for different types analyses included in the syllabus.
	CO-6. Students should be able to differentiate / distinguish / compare among the different analytical terms, process and analytical methods.
	CO-7. Students should be able to apply whatever theoretical principles he has studied in theory during practical in laboratory.

MASTER OF SCIENCE	
PROGRAMME: M.Sc. Analytical Chemistry	
Programme Outcomes	PO-1. To develop a strong footing in the fundamentals and specialize in the disciplines of his/her
	PO-2. To develop in depth understanding of various aspects of the subject
	PO-3. To have deeper understanding of laws of nature through subjects like material science, Nanotechnology, quantum mechanics, Bio-organic Chemistry etc.
	PO-4. The ability of problem solving will be enhanced. Students can apply principles in chemistry to real life problems
Program Specific Outcomes	PSO-1. After completion of program, students will be able to have in-depth knowledge of basic concepts in Chemistry
	PSO-2. Students will be able to apply the laws of Physics in real life situations to solve the problems.
	PSO-3. Students develop the aptitude of doing research by undertaking small projects.
	PSO-4. The student will have set his foundation to pursue higher education in Chemistry.
	PSO-5. After completing the program student will have developed interdisciplinary approach and can pursue higher studies in subjects other than Chemistry.
Course Outcomes M. Sc.-I (Sem-I) (CBCS- 2019)	
CHP-110	CO-1. Students should understand the concept of thermodynamics
	CO-2. The course aims to provide a fundamental understanding of physical chemistry; students learn the concept of Gibbs and

	Helmholtz energies, Chemical potential, Expressing Chemical equilibrium in terms of chemical potential.
	CO-3. Elements of quantum chemistry, wave particle duality, uncertainty principle, wave function and its interpretation, well behaved functions, orthonormal functions, Schrodinger equation, particle in a box, degeneracy, quantum mechanical harmonic oscillator, and quantum tunnelling are introduced. CO-4. Students are made aware of Chemical kinetics and reaction dynamics topics such as Reversible reactions, the principle of microscopic reversibility, steady state approximation, elucidating mechanism using SSA.
CHI-130	CO-1. Students should visualize in 3 dimension to understand the concept of symmetry
	CO-2. Students are made to understand the symmetry and group theory and use this knowledge to interpret the properties like dipole moment, optical activity, and signals in IR and Raman spectroscopy for structure identification.
	CO-3. Students are also made to understand the periodic trends in properties of S and P block elements and their applications in fields like catalysis, industry, human metabolism
	CO-4. Students should understand the detail chemistry of S & P elements
CHO-150	CO-1. To understand some fundamental aspects of organic chemistry, to learn the concept aromaticity, to understand the various types of aromaticity
	CO-2. To study heterocyclic compound containing one and two hetero atoms with their structure, synthesis and reactions.
	CO-3. To know stereochemistry of organic compounds; able to do interconversion of Fischer to Newmann, Newmann to Sawhorse and vice versa, Able to assign R and S to given molecules; understand stereoselective and stereospecific reactions; acquire knowledge on topicity
	CO-4. To study structure, formation, stability and related name reaction of intermediates like Carbocation, Carbanion, Free Radical, Carbenes and nitrenes; Recognize neighboring group participation.
	CO-5. To study rearrangement reaction with specific mechanism and migratory aptitude of different groups.
	CO-6. To study Ylides and their reaction
	CO-7. To understands the basis of redox reaction; acquire knowledge about the reagents which causes selective.
CHA-190	CO-1. Students will be able to explore new areas of research in both chemistry and allied fields of science and technology.
	CO-2. Students will be able to function as a member of an interdisciplinary problem-solving team.
	CO-3. To impart the student's thorough idea in the chemistry of carbohydrates, amino acids, proteins and nucleic acids etc.
	CO-4. 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.
M. Sc.-I (Sem-II) (CBCS- 2019)	
CHA-210	CO-1. The course aims to provide an understanding of physical chemistry, in this course, the fundamentals of molecular spectroscopy are introduced. Nuclear and radiation Chemistry concepts are introduced.
	CO-2. Students learn basic elements of rotational, vibrational, Raman and electronic spectroscopy.
	CO-3. Students get familiar with Chemical Bonding**:** Valence Bond theory, hybrid orbitals, geometry and hybridization, Molecular Orbital Theory, linear variation method, Approximations underlying Huckel theory, bond order, Aromaticity, Applications of Huckel theory
CHA-230	CO-1. Students are made aware of spectral and magnetic properties of d and f block elements and spectrophotometric analysis of metals like Cr, Mn, Ni and magnetic behavior of various complexes of f-block elements in MRI and as TV phosphors.
	CO-2. Students are also made aware of the role of the metal ion in biologically active compounds like Hb, Mb cytochromes and use of anticancer drugs i.e., platinum complexes.
CHA-250	CO-1. Students will be able to understand the MOT and will be able to extend this in predicting reaction mechanism and stereochemistry of electrocyclic reactions.
	CO-2. The concepts in free radical reactions, mechanism and the stereo chemical outcomes.
	CO-3. Students should able to write MO diagram for various olefinic compounds and should able to predict the products, the stereochemistry as well as should able to understand the preferred reaction pathways.
	CO-4. Student should able to calculate λmax value of organic compounds containing more than one and less than four conjugated systems. Students should able to correlate IR bands with functional groups using numerical data as well as spectral data.
	CO-5. The basic principle of spectroscopic methods and their applications in structure elucidation of organic compounds using given spectroscopic data or spectra.
CHA-290	CO-1. Students will be able to explore new areas of research in both chemistry and allied fields of science and technology.
	CO-2. Students will be able to function as a member of an interdisciplinary problem-solving team.
	CO-3. To impart the student's thorough idea in the chemistry of carbohydrates, amino acids, proteins and nucleic acids etc.
	CO-4. 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.
CH-107 Physical Chemistry Practical	CO-1. These techniques will enable them to work as quality control chemist in various labs and such organizations.

	CO-2. Students are trained to use techniques such as pH metry, Conductometry, Potentiometry, Colorimetry, Spectrophotometry, Refractometry, and G. M. Counter.
CH -227 Inorganic & Organic Chemistry Practical	CO-1. Students are trained to different purification techniques in organic chemistry like recrystallization, distillation, steam distillation and extraction.
	CO-2. Students are made aware of safety techniques and handling of chemicals.
	CO-3. Students are made aware of carrying out different types of reactions and their workup methods.
	CO-4. This practical course is designed to make student aware of green chemistry and role of green chemistry in pollution reduction.
M.Sc.-II (Sem-III) (CBCS- 2019)	
CHA-390 Electrochemical and Thermogravimetric Methods of Chemical Analysis	CO-1. Study of coulometry, Faraday law Electroanalysis.
	CO-2. Study of voltammetry and paleographic method of analysis, and radio analytical hydrodynamic voltammetry, plus paleography and cyclic voltammetry. methods of
	CO-3. Study of amperometry and their applications, analysis
	CO-4. Learn radio analytical methods of analysis, activation analysis, isotope dilution analysis, radio metric titration.
CHA-391 Analytical method development and Extraction Techniques	CO-1. To understand assay validation and inter laboratory transfer.
	CO-2. Study the statistical analysis and analytical figure.
	CO-3. Overview of worldwide regulations.
	CO-4 Specific methods and applications, Dissolution studies and USP types.
	CO-5 Method development technique and validation specific analyze.
	CO-6 Study extraction techniques in analytical chemistry.
	CO-7. Study the classical approach for aqueous extraction, solid phase extraction, micro extraction and SFE.
CHA-392 Advanced Chromatographic Methods of Analysis	CO-1. Study of Mass Spectroscopy apparatus
	CO-2. Study the fundamentals of Chromatographic methods- Gas Chromatography
	CO-3. Study the application of gas chromatography and mass spectrometry.
	CO-4. Study quantitative analysis by gas liquid chromatography method.
	CO-5. Study the instrumentation of HPLC
	CO-6. Methods of HPLC Reverse, adsorption, Ion Exchange, Size Exclusion and separation of enantiomers.
CHA-393 B Analysis of Food and Controlled Substances	CO-1. Analytical methods use for food analysis.
	CO-2. Study the preparation of sample and total solid analysis.
	CO-3. Analysis of Ash, Lipids and Proteins from Sample.

	CO-4. Study of Food preservatives.
	CO-5. Study the chemical test for narcotic drugs and psychotropic substances.
CHA-394 Practical I: Basic of Instrumentation Methods of Chemical Analysis	CO-1. To understand various terms involved practical methods of quantitative analysis.
	CO-2. To analyze organic and inorganic materials using appropriate chemicals.
	CO-3. To study basic principles of chemicals and instrumental methods.
	CO-4. To calculate the result and interpret the result
M.Sc.-II (Sem-II) (CBCS- 2019)	
CHA-490 Advanced Analytical spectroscopic Techniques	CO-1. Study of sample preparation techniques.
	CO-2. Atomic Absorption and Emission Spectroscopy method of analysis, its practical applications.
	CO-3. Understand an introduction AFS, AES and MS, its applications.
	CO-4. Study of chemiluminescence, Fluorescence and phosphorescence.
	CO-5. Study of ESR spectroscopy.
	CO-6. Study the electron paramagnetic resonance spectroscopy.
CHA-491 Chemicals Methods of Pharmaceuticals Analysis	CO-1. Study of pharmaceutical dosage from tablet, Oral Liquid and powder for injections.
	CO-2. To study the chemical test, limit test and assay of different material like Heavy metal, Vaccines, Assay of vitamin A etc.
	CO-3. To study the pharmaceutical methods of determination and its applications.
	CO-4. Study of agar diffusion assay, the theory and practice of tube assay, general practical aspects of microbiological assay.
	CO-5. Introduction to pharmaceutical analytical chemistry.
	CO-6. To study the chemical analysis of pharmaceutical ingredient and preparation.
CHA- 492 B Analytical Chemistry of agriculture, Polymer and Detergent	CO-1. Study of analysis of Soil, fertilizer, sampling and sample preparation, kjeldahl's method.
	CO-2. Understand the analysis of soap and detergents, UV-spectroscopic analysis of detergent.
	CO-3. Learn the polymer chemistry, analysis and testing of polymer, measurement of molecular weight and size.
	CO-4. To understand the analysis of pesticide residue.

CHA-493 A Optional Analytical Chemistry Practical **CHA-494 Applied Analytical Chemistry (Practical II)**	CO-1. To understand various terms involved practical methods of quantitative analysis.
	CO-2. To analyze organic and inorganic materials using appropriate chemicals.
	CO-3. To study basic principles of chemicals and instrumental methods.
	CO-4. To calculate the result and interpret the result.

Program Outcomes, Program Specific Outcomes and Course Outcomes

Department of Botany

PROGRAMME: B. Sc. BOTONY	
Course Outcomes F.Y.B.Sc. (CBCS- 2019)	
Semester: I Paper I: BO 111 Plant life and Utilization I	CO-1. Know the terminologies in Plant kingdom.
	CO-2. Gain the knowledge of outline of plant kingdom.
	CO-3. Know about the structure and life history of Algae, Fungi, Lichens and Bryophytes.
	CO-4. Understand the application of Algae, Fungi, Lichens and Bryophytes.
Paper II BO 112 Plant Morphology	CO-1. Understand the concepts and importance of plant morphology.
	CO-2. Know the reproductive parts of the flower.
	CO-3. Gain the knowledge of terminologies in plant anatomy.
	CO-4. Learn the internal organization of various tissues and plant body.
Paper III BO 113 Practical based on BO 111 & BO 112	CO-1. Gain the practical knowledge of reproductive structures of plants.
	CO-2. Understand the life cycle pattern in *Spirogyra, Agaricus* and *Riccia.*
	CO-3. Gain the knowledge about the types of fruit in plants.
	CO-4. Understand the internal morphology of dicot and monocot plants.
Semester: II Paper I BO 121 Plant Life and Utilization II	CO-1. Gain the knowledge the of plant diversity.
	CO-2. Describe the life cycle and economic importance of Pteridophytes.
	CO-3. Understand the life cycle and economic importance of Gymnosperms.
	CO-4. Know about the classification system in Angiosperms.
Paper II Principles of Plant Sciences BO122	CO-1. Know the importance and scope of Plant Physiology.
	CO-2. Understand the various processes in plant physiology.
	CO-3. Explain the concepts of cell biology and cell cycle.
	CO-4. Understand the biochemical nature of DNA.
Paper III BO 123 Practical based on BO 121 and BO 122	CO-1. Understand the life cycle of *Nephrolepis* and *Cycas.*
	CO-2. Know the comparative account of dicot and monocot plants.
	CO-3. Gain the practical knowledge of mitosis and meiosis.
	CO-4. Gain the practical knowledge of estimation of chlorophyll pigment, plasmolysis and DPD.
S.Y.B.Sc. (CBCS- 2019)	

Botany (Paper I) Sem-I BO-231 Taxonomy of Angiosperms and Plant Ecology	CO-1. Understand the Taxonomy of Angiosperm.
	CO-2. Classify the Angiosperm plants.
	CO-3. Gain the knowledge about Plant families and plant nomenclature.
	CO-4. Describe the plant ecology.
Botany (Paper-II) Sem-I BO-232 Plant Physiology	CO-1. Gain the Knowledge of Plant Physiology scope and Importance.
	CO-2. Understand the concept of Transpiration Ascent of sap.
	CO-3. Describe the Nitrogen metabolism.
	CO-4. Get aware about physiology of flowering and seed germination.
Botany (Paper-III) Sem-I BO-233 Practical based on BO-231 & BO-232	CO-1. Gain the practical knowledge of Taxonomic tools ecological instrument plant families.
	CO-2. Understand the internal morphology of hydrophytes and xerophytes.
	CO-3. Analysed the different test, processes of plant physiology.
	CO-4. Gain the practical knowledge about seed germination, Transpiration DPD.
Botany (Paper I) Sem-II BO-241 Plant Anatomy and Embryology	CO-1. Understand the scope and importance of plant Anatomy.
	CO-2. Classify the different types of tissue systems.
	CO-3. Gain the knowledge about growth of plants.
	CO-4. Describe the different processes in embryology.
Botany (Paper II) Sem-II BO-242 Plant Biotechnology	CO-1. Understand the scope and importance of plant biotechnology.
	CO-2. Gain the knowledge about Plant tissue culture and single cell protein.
	CO-3. Understand the plant genetic Engineering, Genomics, Proteomics and Bioinformatics.
	CO-4. Describe the Bioremediation and Biofuel technology.
Botany (Paper III) Sem-II BO-243 Practical based on BO-241 & BO-242	CO-1. Gain the practical knowledge of plant anatomy.
	CO-2. Understand the practical technique of double stained temporary preparation of plant stem.
	CO-3. Understand the working principle of tissue culture lab instrument.
	CO-4. Gain basic practical knowledge of plant tissue culture, Transgenic plants, *Spirulina* cultivation.
S.Y.B.Sc. Environment Studies Course Outcome (CBCS- 2019)	
S.Y.B.Sc. Semester I Environment Studies	CO-1. Understand the multidisciplinary nature of environment studies.
	CO-2. Gain the knowledge about Ecosystem.
	CO-3. Aware about the natural resources
	CO-4. Describe the Biodiversity and its conservation.
S.Y.B.Sc. Semester II Environment Studies	CO-1. Understand the Environmental Pollution.
	CO-2. Gain the knowledge about Environmental Policies and Practices.
	CO-3. Describe the human communities and Environment.
	CO-4. Understand the basic concept of environment by field visit.

Program Outcomes, Program Specific Outcomes and Course Outcomes

Department of Zoology

Course Outcomes F.Y.B.Sc.	
Paper I ZY-111 & ZY-121 (Animal Diversity I & II)	CO-1. The student will be able to understand classify and identify the diversity of animals.
	CO-2. The student understands the importance of classification of animals and classifies them effectively using the six levels of classification.
	CO-3. The student knows his role in nature as a protector, preserver and promoter of life which he has achieved by learning, observing and understanding life.
Paper II ZY-112 (Animal Ecology)	CO-1. The learners will be able to identify and critically evaluate their own beliefs, values and actions in relation to professional and societal standards of ethics and its impact on ecosystem and biosphere due to the dynamics in population.
	CO-2. To understand anticipate, analyse and evaluate natural resource issues and act on a lifestyle that conserves nature.
	CO-3. The Learner understands and appreciates the diversity of ecosystems and applies beyond the syllabi to understand the local lifestyle and problems of the community.
	CO-4. The learner will be able to link the intricacies of food chains, food webs and link it with human life for its betterment and for non-exploitation of the biotic and abiotic components.
	CO-5. The working in nature to save environment will help development of leadership skills to promote betterment of environment.
Paper II ZY-122 (Cell Biology)	CO-1. The learner will understand the importance of cell as a structural and functional unit of life.
	CO-2. The learner understands and compares between the prokaryotic and eukaryotic system and extrapolates the life to the aspect of development.
	CO-3. The dynamism of bio membranes indicates the dynamism of life. Its working mechanism and precision are responsible for our performance in life.
	CO-4. The cellular mechanisms and its functioning depend on endo-membranes and structures. They are best studied with microscopy.
Paper-III ZO-113 Zoology Practical Paper Semester I	CO-1 Students will get exposure to diversity in animal groups (invertebrates) and Ecology.
	CO-2 It will inculcate good laboratory practices in students and train them about proper handling of lab instruments.
	CO-3 They will acquire knowledge about various tools and techniques

	of field ecology.
	CO-4 During field visits students will have social interaction with locals and develops ethical approach, to conserve diversity of animal kingdom.
Paper-III ZO123 Zoology Practical Paper Semester II	CO-1 Students could identify various animals based on morphological features.
	CO-2 The student will be able to understand and classify the great variety of animals.
	CO-3 Students will acquire knowledge about cell organelles and cell division i.e., mitosis.
	CO-4 They will know how to measure and stain different cell types.
S.Y.B.Sc.	
Paper I ZO - 231 Animal Diversity III Paper-II ZO - 241 Animal Diversity IV	CO-1 The students will be able to understand, classify and identify the diversity of higher vertebrates.
	CO-2 The students will able to understand the complexity of higher vertebrates.
	CO-3 The students will be able to understand different life functions of higher vertebrates.
	CO-4 The students will be able to understand the linkage among different groups of higher vertebrates.
	CO-5 The student will become aware regarding his role and responsibility towards nature as a protector, to understand his role as a trustee and conservator of life which he has achieved by learning, observing and understanding life.
Paper II ZO - 232 Applied Zoology I	CO-1. The students will understand the various aspects of silkworm for effective rearing practices.
	CO-2. To aware the students about economic importance of sericulture, economics and qualities of silk etc.
	CO-3. Students will learn post-harvest processing of silk cocoons.
	CO-4. The learner understands the biology, varieties of silkworms and the basic techniques of silk production.
	CO-5. The learner understands the types of agricultural pests, Major insect pests of agricultural importance and Pest control practices.
Paper II ZO - 242 Applied Zoology II	CO-1. The learner understands the basics about beekeeping tools, equipment, and managing beehives.
	CO-2. The learner understands the basic information about fishery, cultural and harvesting methods of fishes and fish preservation techniques.
	CO-3. Learner will know about managing beehives for honey production and pollination.
	CO-4. The students will able to have self-employment in agricultural sector.
Paper-III ZO – 233 Zoology Practical Paper Semester-I	CO- It will provide exposure to diversity in animal groups (vertebrates), and applied zoology. CO-2 The practical course intends to inform students about Animal systematic, animal diversity and applied zoology field such as Sericulture and Agricultural pests.
	CO-3 Students will be able to identify and control various pests.

Paper-III **ZO – 233** **Zoology Practical Paper** **Semester-II**	CO-1 It will provide Knowledge of various animals from primitive to highly evolved forms and its complexity.
	CO-2 Students will be able to identify poisonous and non-poisonous snakes.
	CO-3 The practical course intends to inform students about Animal systematic, animal diversity and applied zoology field such as Fisheries, Apiculture etc.

Program Outcomes, Program Specific Outcomes and Course Outcomes

Department of Physics

Sr. No.	Program	Program Objectives	Program Specific Outcome
1.	**Physics**	1. To faster scientific attitude provides in depth knowledge of scientific & technological concept of Physics. 2. To Familiarize with recent scientific & technological development. 3. To help students to learn various experimental & computational tools there by developing analytical abilities to address real word problem.	1. Students will have acquired necessary skills & expertise to work in industry. 2. Students will have acquired necessary skills for working in research. 3. Students will have acquired necessary skills to teach physics in colleges. 4. To help students build up progressive & successful career in Physics.

F.Y.B.Sc. (CBCS- 2019)

Sr. No.	Course	Course Outcome
1.	**PHY-111: Mechanics and properties of matter**	CO-1. The students will be able to apply Newton's laws of motion.
		CO-2. The students will be able to apply the variational principles to real physical problem.
		CO-3. At the end of course student will have through knowledge & problem-solving skills related to the mechanics.
2.	**PHY-112: Physics Principles and Application**	CO-1. Understanding of basics law of physics.
		CO-2. To understand the atomic excitation & laser principles.
		CO-3. To understands the bonding mechanism in molecules & rotational & vibrational energy level of diatomic molecules.
3.	**PHY-113: Physics Laboratory course 1A**	CO-1. Use various instruments and equipment.
		CO-2. Design experiments to test a hypothesis and/or determine the value of an unknown quantity.
		CO-3. Investigate the theoretical background of an experiment.
		CO-4. Setup experimental equipment to implement an experimental approach.
		CO-5. Analyze the data, plot appropriate graphs and reach conclusions from data analysis.
4.	**PHY-122: Electromagnetism**	CO-1. Understanding of basics law of electromagnetism.
		CO-2. The students will able to analyze radiation system in which the electric dipole, magnetic dipole or electric quadruple dominate.
		CO-3. Demonstrate an understanding of magnetization of materials.
5.	**PHY-121: Heat**	CO-1. Apply the laws of thermodynamic to formulate the relations necessary to analyze a thermodynamics process.

	and Thermodynamics	CO-2. Understand the types of thermometers & their usage.
		CO-3. Describe the properties of & relationships between the properties of a pure substance.
6.	**PHY-123: Physics Laboratory course 1B**	CO-1. Use various instruments and equipment.
		CO-2. Design experiments to test a hypothesis and/or determine the value of an unknown quantity.
		CO-3. Investigate the theoretical background of an experiment.
		CO-4. Setup experimental equipment to implement an experimental approach.
		CO-5. Analyze the data, plot appropriate graphs and reach conclusions from data analysis.

S.Y.B.Sc. (CBCS- 2019)

Sr. No.	Course	Course Outcome
1.	**PHY-231: Mathematical Methods in Physics-I**	CO-1. Understand the complex algebra useful in physics courses.
		CO-2. Understand the concept of partial differentiation.
		CO-3. Understand the role of partial differential equations in physics.
		CO-4. Understand vector algebra useful in mathematics and physics.
		CO-5. Understand the concept of singular points of differential equations
2.	**PHY-232: Electronics**	CO-1. Apply different theorems and laws to electrical circuits.
		CO-2. Understand the relations in electricity.
		CO-3. Understand the parameters, characteristics and working of transistors.
		CO-4. Understand the functions of operational amplifiers.
		CO-5. Design circuits using transistors and applications of operational amplifiers
		CO-6. Understand the Boolean algebra and logic circuit
3.	**PHY-233: Practical Course**	CO-1. Use various instruments and equipment.
		CO-2. Design experiments to test a hypothesis and/or determine the value of an unknown quantity.
		CO-3. Investigate the theoretical background of an experiment.
		CO-4. Setup experimental equipment to implement an experimental approach.
		CO-5. Analyze the data, plot appropriate graphs and reach conclusions from data analysis.
		CO-6. Work in a group to plan, implement and report on a project/experiment.
		CO-7. Keep a well-maintained and instructive laboratory logbook.
4.	**PHY-241: Oscillations, Waves, and Sound**	CO-1. To study underlying principles of oscillations and its scope in development.
		CO-2. To understand and solve the equations / graphical representations of motion for simple harmonic, damped, forced oscillators and waves.
		CO-3. To explain oscillations in terms of energy exchange with various practical applications.
		CO-4. To solve numerical problems related to undamped, damped, forced oscillations and superposition of oscillations.
		CO-5. To study characteristics of sound, decibel scales and

		applications.
5.	**PHY-242: Optics**	CO-1. Acquire the basic concept of wave optics.
		CO-2. Describe how light can constructively and destructively interfere.
		CO-3. Explain why a light beam spread out after passing through an aperture
		CO-4. Summarize the polarization characteristics of electromagnetic wave
		CO-5. Understand the operation of many modern optical devices that utilize wave optics
		CO-6. Understand optical phenomenon such polarization, diffraction and interference in terms of the wave model
		CO-7. Analyze simple example of interference and diffraction.
6.	**PHY-243: Practical Course**	CO-1. Use various instruments and equipment.
		CO-2. Design experiments to test a hypothesis and/or determine the value of an unknown quantity.
		CO-3. Investigate the theoretical background of an experiment.
		CO-4. Setup experimental equipment to implement an experimental approach.
		CO-5. Analyze the data, plot appropriate graphs and reach conclusions from data analysis.
		CO-6. Work in a group to plan, implement and report on a project/experiment.
		CO-7. Keep a well-maintained and instructive laboratory logbook.

Program Outcomes, Program Specific Outcomes and Course Outcomes

Department of Mathematics

PROGRAMME: B.Sc.	
Course Outcomes (Mathematics)	
F.Y. B.Sc. (CBCS- 2019)	
(MT-111) Algebra	CO-1 To understand concept of sets, inverse of function and equivalence relation.
	CO-2 To understand the Division Algorithm and find g.c.d. by using Euclidean Algorithm.
	CO -3 Apply Euler-Fermat's Theorem to prove relations involving prime numbers.
	CO-4 To understand the theory of congruence.
	CO-5 Be able to prove n^{th} roots of unity and to find Regions in Complex Plane.
(MT-112) Calculus-I	CO-1 To understand The Algebraic and Order Properties of R, Absolute Value and the Real Line.
	CO-2 Define and utilize the following concepts: sequence, subsequence, monotone sequence.
	CO-3 To understand the Bolzano-Wierstrass Theorem and Divergence criteria.
	CO-4 Define Functions, domain and range, graphs of functions. Determine increasing and decreasing functions, even and odd functions.
	CO-5 Be able to understand the definition of continuous function at a point, Divergence criterion.
(MT-113) Mathematics Practical	CO-1 Solve problems related to all topics in the syllabus of Algebra and Calculus-I.
	CO-2 The student gets knowledge of maxima software, using this software they can solve.
	CO-3 Identify the monotonic increasing and decreasing sequence of real number.
	CO-4 Using Maxima Software to find the graph of functions.

	CO-5 To understand solves the problem using Maxima Software.
(MT-121) Analytical Geometry	CO-1 Be able to define translation and rotation of axis discuss the nature of conic.
	CO-2 Compute the angle between a line and a plane, length of perpendicular from a point to a line.
	CO-3 To understand Equations of a line in Symmetric and unsymmetrical forms, Line passing through two points.
	CO-4 To understand Intersection of a sphere and a line, Equation of tangent plane to sphere.
	CO-5. Find equation of a circle, sphere through a given circle.
(MT-122) Calculus-II	CO-1 To Understand the derivative of a function at a point, every differentiable function is continuous, Rules of differentiation.
	CO-2 Be able to calculate limits in indeterminate forms by a repeated use of L' Hopital's rule
	CO-3. Extract the solution of differential equations of the first order and of the first degree by variables separable, homogeneous and non-homogeneous method.
	CO-4. To understand Taylor's theorem and Maclaurin's theorem with Lagrange's form of remainder.
	CO-5. Find Integrating factors and decide exact differential equations
(MT-123) Mathematics Practical	CO-1. Solve problems related to all topics in the syllabus of Analytical Geometry and Calculus-II.
	CO-2 Find center of conic, nature of conic.
	CO-3 Apply Leibnitz theorem for successive differentiation and solve examples.
	CO-4 Using Maxima Software to find n^{th} derivative of function.
S.Y.B.Sc. (CBCS- 2019)	
(MT-231) Calculus of several variables	CO-1. Define functions of several variables, domain, range, level curves, limit graphs. Find limit of function of several variables, domain, range, can draw graph, level curves.
	CO-2. Calculate the partial derivatives of functions of several variables, Clairaut's theorem, laplace equation, wave equation, differentiability of functions, chain rule, homogeneous function
	CO-3. Determine the extrema of functions of several variables**,** second derivative test, Use the Lagrange multiplier method to find extrema of functions with constraint
	CO-4. Iterated Integrals, Fubini's Theorem, Double integral over general regions, Double integral in Polar coordinates, Triple integrals, Evaluation of triple integrals.
	CO-5. Triple integrals in spherical coordinates, Jacobians, Change of

	variables in multiple integrals
(MT-232(A)) Numerical Methods and its Application	CO-1. Be able to understand the basic idea of Errors and Their Computations. Know how to find Absolute, relative and percentage errors, and to understand the general error formula. Be familiar with the notion rounding off numbers to n significant digits, to n decimal places,
	CO-2. To find the Solution of Algebraic and Transcendental Equations using Bisection method, The method of False position, Newton-Raphson method
	CO-3. Define Basic concepts of finite difference operators and their relation , Differences of a polynomial ,Newton's Interpolation Formulae (Forward and Backward) ,Lagrange's Interpolation Formula , Newton's General Interpolation formula
	CO-4. To understands and can find Numerical Differentiation Numerical Integration using General quadrature formula, Trapezoidal rule. Simpsons's $1/3^{rd}$ rule. Simpsons's $3/8^{th}$ rule
	CO-5. Able to find numerical solution of first order ordinary differential equations using Taylor Series method, Picard's method of successive approximation, Euler's method, Modified Euler's methods, Runge - Kutta Methods 2nd and 4th order
MT-233 Mathematics Practical	CO-1. Solve problems related to the syllabus of Calculus of several variables and Numerical Methods and its Application.
	CO-2. The student gets knowledge of Maxima Software,
	CO-3. Using Maxima software student can solve the problems of Calculus of several variables and Numerical Methods and its Application.
MT-241: Linear Algebra	CO-1. Students will be able to understand Row echelon form of a matrix, reduced row echelon form of a matrix.
	CO-2. Solve the system of linear equation, Consistency of homogeneous and non-homogeneous system of linear equations using rank, condition for consistency
	CO-3. Students will able to Define Vector Space, Subspace, linear combination linear span and linear dependence, independence, basis and inner product
	CO-4. Know how to find the row space, column space and null space of a matrix, and be familiar with the concepts of dimension of a subspace and the rank and nullity of a matrix
	CO-5. 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.
MT-242 Vector Space	CO-1. Define the Curves in Space, Limits and Continuity,

	Derivatives and Motion, Unit Tangent Vector, Curvature of a Plane Curve, Circle of Curvature for Plane Curves.
	CO-2. To find the Curvature of a Plane Curve, unit tangent vector
	CO-3. Understand the concept of Line Integral of Scalar Functions, Line integral in the Plane, Vector Fields, Gradient Fields, Line Integral of Vector Fields, Work done by a Force over a Curve in Space, Path Independence, Conservative and Potential Functions,
	CO-4. Solve the problem Parameterizations of Surfaces, Surface integrals, Surface Integrals of Vector Fields.
	CO-5. Students will be able to understand the concept The Curl Vector Field, Stokes' Theorem, Conservative Fields and Stokes' Theorem, Divergence Theorem, Unifying the Integral Theorems.
MT-243 Mathematics Practical	CO-1. Solve problems related to the syllabus of Linear Algebra and Vector Space.
	CO-2. Using Maxima software student can solve the problems Linear Algebra and Vector Space.