Program Outcomes

The Program outcome of Bachelor Arts is as follows:

PO1: Community engagement and global understanding

PO2: Critical and creative thinking

PO3: Communication skills

PO4: Inculcation of ethical values

The Program outcome of Bachelor Commerce is as follows:

PO1: Application of basic skills necessary for analysis of programs in Economics, Accounting, Marketing, Management and Finance

PO2: Understanding of national economic and business scenario

PO3: Contribution to the successful operation of a business

The Program outcome of Bachelor of Science is as follows:

PO1: To introduce the fundamentals of science education

PO2: To enrich students' knowledge in all basic sciences

PO3: To develop interdisciplinary approach amongst students

PO4: To inculcate sense of scientific responsibilities, social and environment awareness

PO5: Help students to build-up a progressive and successful career in academics and industry

PO6: To motivate the students to contribute in the development of Nation

Programme Specific Outcomes

Department of Geography

On Completion of the B.A. (Geography) Students are able to,

- Study the land forms and processes.
- Understand the structure, composition of different spheres of the earth and its Atmosphere.
- Understand importance of oceans, rivers and water and find ways of their conservation.
- Understand the Function and types of Biogeography
- Understand the science of Remote Sensing.
- Make use GIS & GPS software.

Department of Economics

On completion of B.A. (Economics), Students are able to,

- Understand basic concepts of economics.
- Analyze economic behaviour in practice.
- Understand the economic way of thinking.
- Analyze historical and current events from an economic perspective.
- Write clearly expressing an economic point of view.
- Find alternative approaches to economic problems through exposure to coursework in allied fields.
- Create student's ability to suggest solutions for various economic problems.

Department of English

On completion of B.A. (English), students are able to,

- use correct English in oral as well as written form.
- Inculcate of human values for one's transformation of behavior.
- interpret the literary works by critical analysis.
- Compare literary works of the great philosophers using their logic and literary capacity.
- Participated in various social and cultural activities voluntarily.
- Developed various communication skills such as reading, listing, speaking, etc., which will help in expressing ideas and views clearly and effectively

Commerce Faculty

After completing Bachelor of Commerce (B.Com.),

- Students have a choice to pursue professional courses such as CA, M.COM, MBA, CMA, ICWA.
- The students are ready to apply the various skills, concepts and techniques used in Commerce.
- To build a strong foundation of knowledge in different areas of Commerce
- To develop the skill of applying concepts and techniques used in Commerce.
- To develop an attitude for working effectively and efficiently in a business environment.
- To integrate knowledge, skill and attitude that will sustain an environment of learning and creativity among the students.
- To expose students about entrepreneurship.
- To enable a student to be capable of making decisions at personal and professional level.

Department of Physics

On completion of the B. Sc. (Physics) program, students will be able to,

- Understand fundamental theory of nature at small scale & energy levels of atom & sub-atomic particles.
- Relate the structure of atoms & subatomic particles.
- Understand physical properties of molecule the chemical bonds between atom as well as molecular dynamics.
- Learn the Concept of Quantum Mechanics, Relativity, introduced at degree level in order to understand nature at atomic levels
- Understand the relationship between particles & atom, as well as their creation & decay.
- Understand the relationship between particles & atom, as well as their creation & decay.

Department of Chemistry

- The student will learn the ability to work in teams and apply basic ethical principles.
- The student will understand the importance of the Periodic Table of the Elements, how it came to be, and its role in organizing chemical information.
- The student will learn the laboratory skills needed to design, safely conduct and interpret chemical data.
- The student will understand the interdisciplinary nature of chemistry and able to use knowledge of mathematics, physics and life sciences.
- The student will develop the ability to effectively communicate scientific information and discuss the results in written and oral formats.
- The student will understand environmental chemistry, pollution control & how to use hazardous chemicals.
- The student will understand importance of chemical analysis & also knows instrumental methods of analysis.
- To understand the data handling and knowing accuracy, precision, significant figures, rounding off.

Department of Mathematics

After completion of B. Sc. (Mathematics) student will able to,

- Learn to solve improper integrals
- Use of Linear equations for solving any differential equations
- Understand various problems related with planar graphs.
- Understand Concepts of Matrices and linear equations.
- Learn properties of inverse Laplace transforms

Department of Computer Science

On completion of the B.Sc. (Computer science) students are able to:

- Work as DTP Operator in small-scale industries.
- Give Technical Support for various systems.
- Work as IT Sales and Marketing person.
- Work as Support Engineer and Technical Writer.
- Serve as Web Designer with latest web development technologies.

Work as Systems Engineer and System integrator.

Course Outcomes (Arts Faculty)				
Class / Dept.	**Course Code**	**Outcomes (Sem. I, III & V)**	**Course Code**	**Outcomes (Sem. II, IV & VI)**
FYBA (CBCS) Dept. of Geog.	**Gg-101**	**Physical Geography I (Sem-I)**	**Gg-201**	**Physical Geography II Semester (Sem-II)**
		Understand the effect of rotation and revolution of the Earth		Understand the importance of Atmosphere
		Know the internal structure of the earth know the importance of longitudes & latitudes International Date line and Standard time		Understand the composition of atmosphere
		Understand interior structure of the earth		Know Measurement of Atmospheric Pressure and formation of Pressure Belts
		Understand Theory regarding of Origin of Continents and oceans		Understand the types of winds
		Study the formation of Rocks Understand the work of internal and external forces and their associated landforms.		
SYBA Geog.	**Gg. 231: G2**	**Human Geography Sem -III**	**Gg. 241: G2**	**Economic Geography Sem-IV**
		Understand the relationship of man and environment		Study the Human Economic Activities
		Studies of races of man kinds.		Explain the Weber theory Rostov modal
		Understand the modes of life of Eskimo, pigmy, gond ,Bhill And nagas.		Understand the mineral and power resources
		Importance of Right to Information Acts.		Study of the distribution of engineering, cotton sugar Industries in India
	S2	**Practical Geography Study of Scales, Projections and Surveying Sem -III**	**S2**	**Practical Geography Study of Scales, Projections and Surveying Sem -IV**
		Understand the different surviving techniques.		Understand the different surviving techniques.
		Knowledge about preparation of layout		Knowledge about preparation of layout
		Understand the socio economic condition of the villages		Understand the socio economic condition of the villages
		Acquire knowledge of preparation of drawing of profile with the help of Dumpy level.		Acquire knowledge of preparation of drawing of profile with the help of Dumpy level.
	Gg. 232: S1	**Geography of Maharashtra Sem -III**	**Gg. 242 S1**	**Regional Geography Of India Sem-IV**
		Understand the Geographical Personality of Maharashtra		Understand the location Physiography, Drainage, Climate, and Vegetation of India.
		Study the Major river in Maharashtra		To know the silent feature, problems and prospects of Agriculture
		Understand the Geographical Personality of Maharashtra		Study the Problems And Prospect of Industrial Area.
		Study of major crops of Maharashtra.		Population Composition India.
		Acquire knowledge of forests in Maharashtra.		
TYBA Geog.	**S3**	**Environmental Geography Sem-V**	**S – 3**	**Remote Sensing & GIS Sem -VI**
		Understand Structure, Components of Atmosphere		Understand the History of Remote Sensing
		Study about Nutrient cycling.		Know Arial Photographs and Satellite Imageries
		Acquire knowledge about biodiversity		Acquire Knowledge about Indian Remote sensing
		Understand the value of Resource.		Investigate components and function of GIS
		Understand environmental problems there Cause, Effect and Remedies		Study GIS Data models
		Get knowledge about environmental hazards and management.		Introduce GPS and Its Functions
		Make aware about conservation of resources.		Make use GIS & GPS software

Course Outcomes (Arts Faculty)				
Class / Dept.	**Course Code**	**Outcomes (Sem. I, III & V)**	**Course Code**	**Outcomes (Sem. II, IV & VI)**
TYBA Geog.		Understand the various environmental protection acts		
	G3	**Population Geography Sem -V**	**G3**	**Political Geography Sem-VI**
		Understand the history of population		Understand the history of Political Geography.
		Understand the types of data		Get knowledge about Evolution of states & nations.
		Study of distribution and density of population.		Get knowledge of Geopolitical theories
		Get knowledge of population theories.		Investigate Problems and disputes in India
		Investigate Current Issues and Problems in India		
	S4	**Practical: Interpretation of Toposheets, weather reports, Cartographic Methods Sem-V**	**S4**	**Practical: Interpretation of Toposheets, weather reports, Cartographic Methods Sem-VI**
		Understand the mechanism function of topographical maps		Introduce the student of top sheet, weather map
		Introduce the student of top sheet, weather map		Understand the mechanism function of topographical maps
		Understand interpretation if weather images		Get knowledge about Geo Statistical Methods
		Get knowledge about Geo Statistical Methods		Understand interpretation if weather images
FYBA ECO.	**ECO G-101(A)**	**Principles of Micro Economics –I**	**Eco G-201(A)**	**Principles of Micro Economics – II**
		Introduced the students to the basic principles of microeconomic theory.		Introduced the students to the basic principles of micro-economic theory
		To introduced the students behaviour of consumer, producer in Economy, Price determination in market and also factor pricing.		To introduced the students behaviour of consumer, producer in Economy, Price determination in market and also factor pricing.
		How to microeconomic concepts can be applied to analyze real life situations.		How to micro-economic concepts can be applied to analyze real life situations.
SYBA ECO.	**ECO231 :**	**Indian Economy Since 1980-I**	**ECO-241**	**INDIAN ECONOMY SINCE 1980 – II**
		To enable students to have understanding the various issues of the Indian Economy.		To enable students to have understanding the various issues of the Indian Economy.
		To develop the analyzing capability in the context of current Indian Economic Problems.		To develop the analyzing capability in the context of current Indian Economic Problems.
		To able the students for appearing the MPSC, UPSC and other competitive Examinations.		To able the students for appearing the MPSC, UPSC and other competitive Examinations.
	ECO-232:	**Advanced Micro Economics-I**	**ECO-242:**	**ADVANCED MICRO ECONOMICS – II**
		To acquaint the students knowledge of Micro – Economics Concept and Theories		To acquaint the students knowledge of Micro – Economics Concept and Theories
		To enable students to have understanding the Theory of consumer behavior.		To enable students to have understanding the Theory of consumer behavior.
		To develop the analysing capability in applying theories to real life situations		To develop the analyzing capability in applying theories to real life situations
	ECO-233:	**Advanced Macro Economics-I**	**ECO-243:**	**ADVANCED MACRO ECONOMICS II**
		To acquaint the students' knowledge of Macro Economic concept and theories.		To acquaint the students' knowledge of Macro Economic

Course Outcomes (Arts Faculty)				
Class / Dept.	**Course Code**	**Outcomes (Sem. I, III & V)**	**Course Code**	**Outcomes (Sem. II, IV & VI)**
				concept and theories.
		To acquaint the students' knowledge of Macro Economic problems and policies		To acquaint the students' knowledge of Macro Economic problems and policies
		To develop the analysing capacity in applying theories to real life situation.		To develop the analysing capacity in applying theories to real life situation.
TYBA ECO.	**Eco-351:**	**Indian Economy Since 1980-III**	**Eco 361 -**	**Indian Economy Since 1980-IV**
		To enable students to have understanding the various issues of the Indian Economy.		To enable students to have understanding the various issues of the Indian Economy.
		To develop the analyzing capability in the contextof current Indian Economic Problems.		To develop the analyzing capability in the context of current Indian Economic Problems.
		To able the students for appearing the MPSC, UPSC and other competitive Examinations		To able the students for appearing the MPSC, UPSC and other competitive Examinations
	Eco-352(A)	**Public Finance and Policies-I**	**Eco-362 (A)**	**Public Finance and Policies-II**
		To enable students to have understanding thevarious issues of Public Finance and Policies.		To enable students to have understanding thevarious issues of Public Finance and Policies.
		To develop the analysing capability in thecontext of Public Finance and Policies		To develop the analysing capability in thecontext of Public Finance and Policies
		To able the students for appearing the MPSC, UPSC and other competitive Examinations.		To able the students for appearing the MPSC, UPSC and other competitive Examinations.
	Eco-353(A)	**International Trade and Practices -I**	**Eco-363(A)**	**International Trade and Practices -II**
		To enable students to have understanding the various issues of International Trade and Practices		To develop the analysing capability in the context of International Trade and Practices
		To able the students for appearing the MPSC, UPSC and other competitive Examinations		To able the students for appearing the MPSC, UPSC and other competitive Examinations
FYBA ENG.	**CENG -101**	**Compulsory English**	**CENG - 201**	**Compulsory English**
		This paper can invite the students to know about the treasure of English literature as well communicative approach.		This paper can invite the students to know about the treasure of English literature as well communicative approach.
		The students could prepare himself in oral and written communication for the day-to-day situations.		The students could prepare himself in oral and written communication for the day-to-day situations.
	DSC 1 A	**Reading Literature: Short Stories**	**DSC 1 B**	**Reading Literature: Poems**
		The Course introduces two basic forms of literature- short story which is very near and dear to every human heart.		The Course introduces basic forms of literature- i.e. Poem which is very near and dear to every human heart.
		The course will develop the interest of reading in the students.		The course will develop interest in the recitation of poetry with its prosodic features.
		The course will inspire students to develop their creative ability.		The course will inspire students to develop their creative ability.
		Acquire proficiency in LSRW skills and communicative effectively		
	Compulsory	**Compulsory English**		Able to use grammatically correct language.

Course Outcomes (Arts Faculty)				
Class / Dept.	**Course Code**	**Outcomes (Sem. I, III & V)**	**Course Code**	**Outcomes (Sem. II, IV & VI)**
SYBA **ENG.**	**English**	Get acquaintance with simple Prose, Poetry and Fiction.		Get upgrading in comprehensive ability
		Able to read the works of popular writers		Able to skim and scan for specific information.
		Enhancement in enlarging word power		
		Acquire proficiency in LSRW skills and communicative effectively		
	DSE 1 A	Able to understand the various periods of English Literature	**DSE 1 B**	Gain knowledge of the chronological development of English Literature.
		Acquaint a comprehensive understanding of the various stages in the development of the language and literature.		Acquaint a comprehensive understanding of the various stages in the development of the language and literature.
		Aware of the rise and fall of literary movements and their relationships to socio-political and socio-religious events		Able to explore wider and universal issues, to get better understanding of the world through literature.
		Able to understand the various periods of English Literature		Gain knowledge of the chronological development of English Literature.
	DSE 2 A	Students know the culture of the times.	DSE 2 B	Students know the culture of the times.
		The syllabus can implement the values of literature in life		The syllabus can implement the values of literature in life
		Gain an in-depth knowledge of literature to face competitive examinations.		Gain an in-depth knowledge of literature to face competitive examinations.
		Students know the culture of the times.		Students know the culture of the times.
	DSC 1 C (General paper of Special English)	Develop a flair for reading fiction in English.	DSC 1 D (Gen paper of Special Eng)	Able to consider Drama as a social product and a literary form.
		Get acquainted with the major novelists in literature through a study of the representative novels.		Illustrate the variety and richness of British drama.
		Achieve language proficiency, both written and oral		Achieve language proficiency, both written and oral
		Develop a flair for reading fiction in English.		Able to consider Drama as a social product and a literary form.
	SEC 1 Skill based paper	Gain the knowledge of the underlying „rules‟ of grammar.	SEC 2 Skill based paper	Gain the knowledge of the underlying „rules‟ of grammar.
		Obtain sufficient knowledge of Grammar so as to understand the syntax of English.		Be trained in the correct usage of the English language.
		Be trained in the correct usage of the English language.		Develop insight into the structure of English•

Course Outcomes (Arts Faculty)				
Class / Dept.	**Course Code**	**Outcomes (Sem. I, III & V)**	**Course Code**	**Outcomes (Sem. II, IV & VI)**
				language.
		Become skilled in communication strategies in the language.		Understand the basic grammatical structures in short conversations and discussions
TYBA **ENG.**	AEC: Developing Communication Skills	Improve the ability to communicate in everyday situation		Improve the ability to communicate in everyday circumstances
		Initiate the realm of professional communication.		Employ writing techniques and presentation techniques
		Acquire competence in communicating in particular contexts.		Communicate effectively and appropriately in their real life situations.
		Perform well in group discussions and interviews.		Improve the ability to communicate in everyday circumstances
	DSE 3 ENG A Twentieth Century English Literature	Identify and describe distinct literary characteristics of the time period.	**DSE 3 ENG B** Twentieth Century English Literature	Develop working knowledge of the Principal works, authors or genres.
		Display a working knowledge of British Prose, poetry, drama and novel as a literary genre.		Understand texts in their cultural and historical contexts
		Gain familiarity with select pieces of those authors		Analyze the changing trends in English literature from Tennyson to Virginia Woolf.
		Get acquainted with the literary movement and favoured genres of the period.		
	DSE 4 ENG A: The Study of English Language	The students understand the properties and functions of language	DSE 4 ENG B: The Study of English Language	The students understand the properties and functions of language.
		Learn the basic concepts of Phonetics.		Comprehend the various process of word formation in English.
		Discriminate various English sounds.		Explain the facts and features of English language
				The students are acquainted with morphological concepts and processes
	DSC ENG 1 E: Indian Writing in English	Identify their flaws in English pronunciation and have an individual plan to rectify them.	DSC ENG 1 F: Indian	Understand the recent Indian Literary trends.
		Understand the recent Indian Literary trends.		Evaluate the works of the representative writers.
		Evaluate the works of the representative writers.		Evaluate the cultural heritage of India through its

Course Outcomes (Arts Faculty)				
Class / Dept.	**Course Code**	**Outcomes (Sem. I, III & V)**	**Course Code**	**Outcomes (Sem. II, IV & VI)**
			Writing in English	literature.
		Identify the rich literary tradition in Indian writing in English.		Get acquainted with the eminent Indian Writers in English.
		Get acquainted with the eminent Indian Writers in English.		Acquaint with the great novels in Indian Literature
		Understand and appreciate Indian ethos, aesthetics and values.		Understand and appreciate Indian ethos, aesthetics and values.
	SEC ENG: English for Practical Purposes 3	Improvement in language learning.	SEC ENG: English for Practical Purposes 3	Improvement in language learning.
		Acquire skills to respond in English in everyday life situations.		Acquire skills to respond in English in everyday life situations.
		Obtain sufficient knowledge of Grammar so as to understand the syntax of English.		Obtain sufficient knowledge of Grammar so as to understand the syntax of English.
		Understand the basic grammatical structures in short conversations and discussions		Understand the basic grammatical structures in short conversations and discussions
		encourage students prepare for attending job interviews, develop presentation skills, learn professional skills in communicative English		encourage students prepare for attending job interviews, develop presentation skills, learn professional skills in communicative English
		Improvement in language learning.		Improvement in language learning.
	GE Eng A	Students become aware of the concept of film and its origin and development.	**GE ENG B**	the students analyze and judge film as an adaptation of literary text
		understand the similarities and differences in film and literature		understand the similarities and differences in film and literature
		the students analyze and judge film as an adaptation of literary text		Students could able to comprehend art of cinema making from a literary text.
FYBA	**POL - G - 101 A,**	**Indian Constitution**	**POL - G – 201B**	**Indian Government**
		Understand Indian constitution making process concept & working.		Learn Indian Constitution & create responsible citizen.
		Knows the importance of liberty & justice.		Learn recent trends in Indian Democracy.

Course Outcomes (Arts Faculty)				
Class / Dept.	**Course Code**	**Outcomes (Sem. I, III & V)**	**Course Code**	**Outcomes (Sem. II, IV & VI)**
Polit. Sc.		Learn about decentralization & strong union		To study social documents & relate with Indian Society.
		Able to do mutual interaction & discuss constitutional environment.		To study constitutional amen dements & making process
SYBA Polit. Sc.	**POL-DSC – 1C**	**Introduction to Administration of Maharashtra Sem--3**	**POL-DSC – 1D**	**Introduction to Local and District Administration of Maharashtra. Sem--4**
		discipline.Because it is not only useful for G.K.but also necessay for admire the history and administration of our region.		Very useful for competitive exams
		We should lern about how our administration is going on ,what is the role of administrator of all internal section		to discuss about local and district administration of Maharashtra.
		features of govt,internal brances of administration,structure of govt etc.As well as this paper will help to create further administrator.		Understand knowledge of rural & urban administration.
				To create helpful modern administration.
TYBA Polit. Sc.	**POL-G-351**	**Personal Administration & Management Part I**	**POL-G-361**	**Personal Administration & Management Part II**
		Understand its ever increasing administration responsibility.		To apply the technique of public personal administration.
		Learn about innovative changes in administration.		Know to develop the ability to interact human resource professionals.
		Knows personal administration accountable & effective policy programme.		Learn to better appreciate & understand human resource.
FYBA PSY.	**PSY G1(101)**	**Foundations Of Psychology**	**PSY- G1 (201)**	**Introduction To Social Psychology**
		To impart knowledge of the basic concepts and modern trends in Psychology		To understand the basics of social psychology and to understand the individual in the social world
		To relate the fundamental principles of Psychology in everyday life.		To make the students aware of the applications of the various concepts in Social Psychology in the Indian context.
		To make the students aware of the applications of psychological concepts in various fields.		
SYBA PSY.	**DSC-C (02)**	**Human Developmental Psychology- Early Life (PSY 231 C)**	**DSC- D**	**Human Developmental Psychology- Later Life (PSY - 241 D)**
		To equip the learner with an understanding of the concept and process of human development across the life span.		Introduce students to the concepts, theories, and research which define this discipline of psychology.
		To impart an understanding of the various domains of human development.		Develop the students' capability for connecting discipline content to personal values and behaviour.
				Provide an understanding of the explain issues underlying

Course Outcomes (Arts Faculty)				
Class / Dept.	**Course Code**	**Outcomes (Sem. I, III & V)**	**Course Code**	**Outcomes (Sem. II, IV & VI)**
				lifespan development.
TYBA PSY.	**DSC-2E (03)]**	**Management of Interpersonal Relations (PSY 351)**	**DSC-2F (03)]**	**Adjustment in life span (PSY 361)**
		To develop the skills of positive interpersonal communication.		To impart an understanding of the self-concept and self-esteem.
		To impart an understanding of the various domains of human relationships and process adjustment.		To develop the skills of coping with stress.
		To develop the good decision making to career choice.		To understanding the effect of habit to lifestyle.
FYBA MAR.	**MAR-G-111A 810211**	At the general level, students are acknowledged with Marathi literature, language and culture. It helps them.	**MAR-G-121A 820221**	At the general level, students are acknowledged with Marathi literature, language and culture. It helps them.
SYBA MAR.	**MAR -236 830208**	To develop the interest in understanding the Marathi	**MAR-246 840208**	To develop the interest in understanding the Marathi

Course Outcomes (Arts Faculty)				
Class / Dept.	**Course Code**	**Outcomes (Sem. I, III & V)**	**Course Code**	**Outcomes (Sem. II, IV & VI)**
SYBA MAR. General	**MAR-231-A 830211**	To develop the interest in understanding the Marathi	**MAR-241-A 840211**	To develop the interest in understanding the Marathi
TYBA MAR.	**MAR-355 850208**	Literature, its various forms and aesthetic. It also helps to develop the communication and writing skills to face them overhear of globalization.	**MAR-365 860208**	Literature, its various forms and aesthetic. It also helps to develop the communication and writing skills to face them overhear of globalization.
TYBA	**MAR-351-A 850211**	Literature, its various forms and aesthetic. It also helps to develop the communication and writing skills to face them overhear of globalization	**MAR-361-A 860211**	Literature, its various forms and aesthetic. It also helps to develop the communication and writing skills to face them overhear of globalization

Course Outcomes (Arts Faculty 2020-21)				
Class / Dept.	**Course Code**	**Outcomes (Sem. I)**	**Course Code**	**Outcomes (Sem. II)**

MAR – 351- Gen.		Literature, its various forms and aesthetic. It also helps to develop the communication and writing skills to face them overhear of globalization		Literature, its various forms and aesthetic. It also helps to develop the communication and writing skills to face them overhear of globalization
TYBA MAR.	**MAR-356 850209**	Literature, its various forms and aesthetic. It also helps to develop the communication and writing skills to face them overhear of globalization	**MAR-366 860209**	Literature, its various forms and aesthetic. It also helps to develop the communication and writing skills to face them overhear of globalization
FYBA	**Environmental Studies**	**Environmental Studies for UG Courses**		
		Understand multidisciplinary nature of environmental studies. Know about renewable & non-renewable resources. Understand the individual role in conservation of natural resources.		
		Know about structure & function of ecosystem. Study of forest ecosystem, grassland ecosystem & aquatic ecosystem.		
		Understand conservation of biodiversity at national & local levels. Study the different types of pollution &role of individual in prevention of pollution. Study human population & environment.		

Course Outcomes (Commerce Faculty)				
Class / Dept.	**Course Code**	**Outcomes (Sem. I, III & V)**	**Course Code**	**Outcomes (Sem. II, IV & VI)**
FYBCOM	**101**	**Core Elective-English for Business**	**201**	**Core Elective-English for Business**
		Employ writing techniques and presentation techniques		The students are able to make accurate use of English Language in their respective fields
		The verbal and non-verbal skills of communication are developed.		Initiate the realm of professional communication
		Perform well in group discussions and interviews.		Perform well in group discussions and interviews.
	102 b	**AEC-I Marathi**	**202b**	**AEC-II Marathi**
		To introduce various famous entrepreneurs to commerce students.		To introduce various famous entrepreneurs to commerce students.
		To develop Marathi reading and linguistic comprehension of students.		To develop Marathi reading and linguistic comprehension of students.
		To improve professional and entrepreneurial attitude of students through success stories.		To improve professional and entrepreneurial attitude of students through success stories.
		To acquaint students with special challenges of starting new ventures.		To acquaint students with special challenges of starting new ventures
		To know the qualities to become a successful entrepreneur		To know the qualities to become a successful entrepreneur
	103	**Microeconomics**	**203**	**Microeconomics**
		To understand individual agents of market		Students will be able to understand price determination of factors
		Students will be able to understand consumer behaviour		Students will be able to understand various theories of factors
		Students will be able to understand concept of cost		Students will be able to understand concept of profit & Interest
		Students will be able to understand Linear & Non- Linear functional relationship		Students will be able to understand market equilibrium of firm in monopolistic market.
	104	**Financial Accounting& Costing**	**204**	**Financial Accounting& Costing**
		To introduce the concepts used in Cost Accounting, elements of costs and the concept of cost sheet.		To lay a foundation for the preparations of financial statements from incomplete record.
		To understand various types of Accounting & Costing.		To lay a foundation for understanding the Accounting procedure for Material cost and price methods.
		To lay a foundation for understanding the Accounting Standards issued by the ICAI.		To introduce different methods of Costing.
		To know Accounting for functional transaction of business and materials control		
	105	**Computing Skills.**	**205**	**Quantitative Techniques**
		To understand the use of Office application.		To get knowledge of provisions relating to Permutation, Combination & Sets
		To know the role of word processor, Spread sheet, presentation in industry .		To help students understand Commercial Arithmetic & Mathematical Logic
		To know the relevance of Tally accounting package in modern competitive world.		To develop an understanding Measures of central tendency
		To familiarize the Students with basics of Internet.		To introduce how to Measures of dispersion
	106 a	**Modern Office Management**	**206a**	**Modern Office Management**

Course Outcomes (Commerce Faculty)				
Class / Dept.	**Course Code**	**Outcomes (Sem. I, III & V)**	**Course Code**	**Outcomes (Sem. II, IV & VI)**
		To understand the concept of office management.		To Acquaint Students with special challenges of new modern office
		To develop the interest in methods and procedures of office management.		To know the qualities to become a successful office manager &To understand office organization.
		To acquire the basic knowledge of office appliances and machines.		To introduce the concepts used in office layout and environment in modern context.
		To acquire knowledge of office meetings and proceedings.		To create awareness of the Office Automation & Secretarial Procedure.
	107 a	**Principles & Practices of Banking**	**207 a**	**Principles & Practices of Banking**
		To create awareness of the students about banking sector.		To Understand role and responsibilities of R.B.I in banking sector
		To understand classification and types of Banks		To understand types of various commercial banks
		To acquaint students with the concept of payment system in new world		To get information about Monetary Policy of Central Banks
		To make the students aware of carrier opportunities in the field of banking & payment sector.		To know The Financial and Economic Stability of Banking System
	107c	**Marketing & Advertising**	**207c**	**Marketing & Advertising**
		To create awareness about marketing & advertising		To familiarize with the concept of Print Media, Electronic Media, Outdoor Media
		To establish link between business and marketing & advertising		To introduce various Factors Influencing Advertisement Lay-Out
		To develop an analytical ability to plan for various marketing& advertising strategy.		To know The Process of Preparing Advertising Budget
		To know the relevance of marketing & advertising in modern competitive world		To Acquaint Students Importance of Advertising in Modern Marketing
		Environmental Studies for UG Courses		
		Understand multidisciplinary nature of environmental studies. Know about renewable & non-renewable resources. Understand the individual role in conservation of natural resources.		
		Know about structure & function of ecosystem. Study of forest ecosystem, grassland ecosystem & aquatic ecosystem.		
		Understand conservation of biodiversity at national & local levels. Study the different types of pollution &role of individual in prevention of pollution. Study human population & environment.		
SYBCOM	**23010/302**	**Macroeconomics**	**24010/402**	**Macroeconomics**
		Students will be able to understand macro-economic analysis		Students will be able to understand process of credit creation by commercial banks

Course Outcomes (Commerce Faculty)				
Class / Dept.	**Course Code**	**Outcomes (Sem. I, III & V)**	**Course Code**	**Outcomes (Sem. II, IV & VI)**
SYBCOM		Able to understand of national income		Students will be able to understand Quantity theory of money.
		Able to understand classical & Keynesian theories of output and employment		Students will be able to understand various macroeconomic problems.
		Able to understand consumption & Investment function		Students will be able to understand various macroeconomic policy
	23020/303	**Business & Tax law**	**24020/403**	**Business & Tax law**
		Learn The Law & Legal Principals OF Contract Act 1872.		To understand the basic structure, rules & powers of the Consumer Protection Act.
		Understand the basic structure, rules & powers of consumer protection act.		To know the provision regarding strikes and lock-outs under the Industrial Disputes Act.
		Students to gain a better underrating of the negotiable instrument act.		To be acquainted with the Environment Protection Act.
		Be able to face the Problems on Various Sides of Business and Tax Law		To be acquainted with the Goods and Services tax Act.
	23030/301	**Business Skill**	**24030/401**	**Business Management**
		To acquaint the student with modern management practices.		To develop leadership skills and communication skills.
		To develop leadership skills and communication skills.		To introduce the concept of management to the students.
		To familiarize the students with the nature and scope of management.		To acquaint the student with modern management practices.
		To introduce the concept of management to the students.		
	23040/304	**Corporate Accounting & Casting**	**24040/404**	**Corporate Accounting & Casting**
		To introduce different methods of Costing.		To introduce the relevant Accounting Standards issued by the Institute of Chartered Accounts of india
		To introduce the relevant Accounting Standards issued by the Institute of Chartered Accounts of india		To lay a foundation for understanding the Labour& Overheads Accounting procedure.
		To develop an understanding of the rules of measurement and reporting relating to variouscomponents of corporate financial transactions.		To introduce different methods of Costing.
				To develop an understanding of the rules of measurement and reporting relating to various components of corporate financial transactions
	23050/305	**Computing Management**	**24050/405**	**Business Communication**
		To Know the Principles Of Tally Software.		To Acquaint with Modern Technology In Communication.
		To Acquaint with Modern Technology In Accounting.		To Study Various Types Of Business Letters.
		To Understand the Objectives of Computerised Accounting.		To Know the Principles Of Effective Communication.
		To acquire Computing Skills.		To Develop Awareness regarding New Trends in Business Communication
	23061/306	**a Business Entrepreneurship**	**24061/406**	**a Business Entrepreneurship**
		To know the qualities of entrepreneur.		To understand the concept of entrepreneurship.
		To know the Entrepreneurship Development Programme.		To under entrepreneurship development theories and factors affecting.

Course Outcomes (Commerce Faculty)				
Class / Dept.	**Course Code**	**Outcomes (Sem. I, III & V)**	**Course Code**	**Outcomes (Sem. II, IV & VI)**
		To under entrepreneurship development theories and factors affecting.		To know the Entrepreneurship Development Programme.
		To understand the concept of entrepreneurship.		To recognize women entrepreneurship.
	23071/307	**a Modern Banking & Financial System**	**24071/407**	**a Modern Banking & Financial System**
		To update the students about new changes in Banking		To study the various dimensions of modern banking & financial system
		To acquaint students with the new concepts of Banking		Students will be able to understand the Principles of Banking.
		To make understandable of Banking operations		To acquaint students with the new concepts of Banking.
		To know the relevance Banking practices in modern competitive world		
TYBCOM	**35010/501**	**a Indian economic scenario**	**36010/601**	**a Indian economic scenario**
		To update the students about new changes in eco.		To study the various dimensions of modern eco. system
		To acquaint students with the new concepts of eco.		Students will be able to understand the Principles of economic
		To make understandable of economics operations		To acquaint students with the new concepts of economic.
	35020/502	**Principles & Practices of Auditing**	**36020/602**	**Principles & Practices of Auditing**
		To provide recent trends in Auditing.		Role of Principles in Auditing
		Students will be able to understand the Principles of Auditing.		To enable the students to acquire necessary skills to deal in corporate world.
		To introduce the concept, principles and practices Auditing.		To develop the Interest of students in Practices of Auditing.
	35030/504	**Income Tax**	**36030/604**	**Goods & service tax (GST)**
		know the various provisions relating to Income and Incomes tax computation		To equip students with the necessary soft skills to enhance their competitive edge in the job market
		understand the basic concepts of the Income Tax Act 1961 and get the elementary knowledge of scheme of taxation in India.		To imbibe in students' positive attitude towards life and work
		compute Income and Tax of an Individual assesse under the Act		To help students excel in their individual and professional lives using the soft skills
				To understand the Concept of Time management & Stress management
	35040/505	**Human Resource Management**	**36040/605**	**Human Resource Management**
		To introduce the concept, principles and practices of H.R.M. to the students.		To provide recent trends in Human Resource Management.
		To familiarize students with concepts of human resource planning.		To study the various dimensions of Human Resource Management.
		To familiarize students with concepts of Job Analysis.		To develop the total personality of students as future Human Resource of India.
		To study the recruitment &seletion process.		To introduce the concept Training and Management Development of H.R.M. to the student

Course Outcomes (Commerce Faculty)				
Class / Dept.	**Course Code**	**Outcomes (Sem. I, III & V)**	**Course Code**	**Outcomes (Sem. II, IV & VI)**
	35051/503	**Business Management**	**36051/603**	**Business Management**
		To develop the Interest in Modern Management techniques		To understand the Concept of Production, Operation & Services
		To familiarize the student to understand modern management in various sector		Students will be able to understand the concept of Challenges before Corporate Sector
		Students will be able to understand the Concept of Chapter-V E-Customer Relationship Management (E-CRM)		To familiarize students with concepts Matrix management & Supply chain logistics
		To understand the concept of corporate enviorment		
	35061/506a	**a: Advanced Accounting–I**	**36061/606a**	**a:Advanced Accounting–I**
		To impart the students, knowledge about accounting treatment of functional aspects of Corporate and Non-corporate undertakings		To acknowledge the students with the management accounting concepts and techniques.
		To appraise the students about need and importance of Accounting Standards concerning the functional aspects accounting		To develop competence among the students.
		To appraise the students about the application of accounting knowledge in preparation of financial		To enable the students to apply analytical tools & techniques of Advanced accounting.
	35081/506d	**d: Business Administration-I**	**36081/606d**	**d: Business Administration-I**
		To acquaint the students with the concepts and issues in Business Administration.		To acknowledge the students with the business administration and its techniques.
		To enable the students to understand the nature and scope of Business Administration.		To develop competence among the students.
		To know the relevance business administration practices in modern competitive world.		To acquaint the students with the concepts and issues in Business Administration.
	35071/507a	**a: Advanced Accounting–II**	**36071/607aSS**	**a: Advanced Accounting–II**
		To apprise the students about the application of accounting knowledge in preparation of financial statements of bank accounts		To impart the students, knowledge about accounting treatment of corporate undertaking structuring.
		To appraise the students about application of the AS concerning the aspects in accounting		To appraise the students about the application of accounting knowledge in reading and interpreting the financial statement of corporate entities
		To make students familiar with the basic concepts of Practical accounting.		To update the students about new changes in Accounting.

Course Outcomes (Science Faculty)				
Class / Dept.	**Course Code**	**Outcomes (Sem. I, III & V)**	**Course Code**	**Outcomes (Sem. II, IV & VI)**
FYBSC PHY.	**PHY-101 (Sem. I)**	**Basic Mechanics**	**PHY-201 (Sem. II)**	**Electricity and Electrostatics**
		Students will demonstrate proficiency in vector algebra.		Basic mathematical concepts related to vector analysis.
		Understand type of differential equations.		To analyze basic laws of current and electricity.
		Concept of Laws of motion.		To determine time constant and its physical significances..
		Concept regarding momentum and energy.		Basic concepts of electrostatic field.
		Understand the basic concept regarding rotational motion.		Understand Gauss's theorem of electrostatics, applications.
	PHY-102 (Sem. I)	**Dynamics and Elasticity**	**PHY-202 (Sem. II)**	**Dielectrics, magnetism and electromagnetism**
		Understand the effect of gravitation on objects and also the motion ofsatellite. Familiar with GPS technology.		Learnconcept and different types of capacitors.
		Understood Simple harmonic motion and its Differential equation and energy calculations.		Understand the roll of dielectric and Gauss, theorem.
		Study the elastic behaviour and working of torsional Pendulum.		Able to distinguish between different types of magneticmaterials and different kinds of magnetism manifested in it.
		Able to differentiate the streamline and turbulent flow of liquids and reason out the effects of liquids flow.		Analyse magnetic properties of a various shaped solenoid.
		Understood Poiseuillie's equation and Bernoulli's theorem with their application.		Learn the laws of induction and analyse energy stored.
				Understand the unification of electric and magnetic fields and Maxwell"s equations governing EM waves.
	PHY-103 (Sem. I)	**LAB -I**	**PHY-203 (Sem. II)**	**LAB -II**
		Basic mathematical concepts related to vector analysis.		Students would gain practical knowledge about electricity and measurements such as: Resistance, Voltage, current etc.
		To analyse basic laws of current and electricity.		Capable to find electric power consumed using the energy meter.
		To determine time constant and its physical significances.		Analyze basic laws of current and electricity practically.
		Basic concepts of electrostatic field.		Use effectively the analogue and digital multi-meter.
		Understand Gauss's theorem of electrostatics, applications.		Determine RC time constant of condenser.
SYBSC PHY.	**PHY 301**	**Thermodynamics and Kinetic theory of gases**	**PHY 401**	**Waves, Oscillations and acoustics**
		To acquire deep knowledge in fundamental aspects and basic knowledge in Thermodynamics.		Understand the composition of two S.H.M.s of equal frequencies along same line of vibration at right angles.
		Understand Second and Third Law of Thermodynamics and Entropy.		Learn the demonstration of Lissajous figures by mechanical, optical and electrical methods.
		To learn about Heat Engines.		Able to solve differential equation of forced oscillations and its solution, and to obtain different terms.
		To understand the basic concepts of Kinetic Theory of Gases		Understand concept of sound and to classify sound frequencies.
		Understanding about Transport Phenomena: Viscosity, Conduction and Diffusion.		Understand effects like piezoelectric, Magnetostriction and learn about ultrasonic waves by these oscillators.
		Study of Law of equipartition of energy (no derivation) and its applications to specific heat ofgases; mono-atomic and diatomic gases.		Able to understand Doppler effect in sound and light and its application.

Course Outcomes (Science Faculty)				
Class / Dept.	**Course Code**	**Outcomes (Sem. I, III & V)**	**Course Code**	**Outcomes (Sem. II, IV & VI)**
	PHY 302 (A)	**Electronics- I**	**PHY 402**	**Optics and LASERS**
		Students are able to understand about concept of Semiconductor diodes and apply the concept of use of knowledge of Electronics to real life problems.		Students are able to understand about Geometrical Optics.
		Understanding about Rectifiers and Power Supplies and Bipolar junction transistor.		Apply the concept of use of knowledge of Optics and LASERS to real life problems.
		Understanding of the course will create scientific temperament.		Understanding of the course will create scientific temperament.
		Understand the concept of power supply and digital electronics in real life.		Understand the basic role of light in nature and study of polarization as well as non-linear optics.
	PHY 303	**LAB-III**	**PHY - 403**	**LAB-IV**
		Determination of coefficient of thermal conductivity of a bad conductor by Lee's method and Charlton's disc method.		Study of Lissajous Figures and demonstration of Lissajous figures by using C.R.O.
		Study the thermal conductivity of rubber by tubing method.		Concept of resonance using Kater's pendulum.
		Determination of thermal conductivity of metal by Forbe's method.		To determine the Resolving Power of a Prism.
		Determination of Refractive Index of the Material of a given Prism using Sodium Light.		Determination of wavelength of sodium light using Newton's Rings.
		Dispersive Power of the Material of a given Prism using Mercury Light		Measurement of beam size of a LASER beam.
		Study of logic gates (AND, OR and NOT) using diodes and transistors		Measurement of beam divergence of a LASER beam.
		Experimental verification of NAND gate as a universal building block		Determine the wavelength of light from LASER source using Diffraction grating.
		To determine fill factor and efficiency of solar cell		Determine wavelength of (1) Sodium & (2) spectrum of Mercury light using plane diffraction Grating.
		Comparison of luminous intensities of two light sources by using photo voltaic cell.		Determine the Resolving Power of a Plane Diffraction Grating.
		To study I – V characteristic of (i) a resistor and (ii) a p–n junction diode and compare it.		Log decrement.
	PHY 304: (Skill Enhancement course-I)	**Renewable energy and Energy Harvesting**	**PHY 404: (Skill Enhancement course-II)**	**Electrical Circuits and Network Skills**
		Understanding if Conventional and Non-conventional energy Sources.		Understanding Basic Electricity Principles and Electrical Circuits.
		Importance and need of Solar Energy		Study of Electrical Drawing and Symbols.
		Ocean, geothermal, Hydro and Biomass energy resources.		Understanding of Generators and Transformers, Electric Motors.
		Energy Harvesting (Wind Energy/ Piezoelectric Energy/ Electromagnetic Energy harvesting)		Study of Electrical Protection and Electrical Wiring
	PHY 501	**Mathematical Physics**	**PHY 601**	**Quantum mechanics**

Course Outcomes (Science Faculty)				
Class / Dept.	**Course Code**	**Outcomes (Sem. I, III & V)**	**Course Code**	**Outcomes (Sem. II, IV & VI)**
TYBSC **PHY.**		Learn and understand vector analysis, including important mathematical theorems. Student will be able to apply the vector properties and use the theorems to understand basic physical phenomena.		Students Understand basics of quantum mechanics using Schrödinger wave equation.
		Understand the basic concept of Co-ordinate system.		Learn to apply Schrödinger wave equation to different quantum mechanical problems and solve.
		Able to solve ordinary second order differential equations important in the physical sciences; solve physically relevant partial differential equations using standard methods like separation of variables etc.		Learn complete theory of Hydrogen atom with quantum mechanical approach and to define four quantum numbers.
		Be able to solve basic classical variation problems.		Learn new ideas about operators in quantum mechanics and their types and to apply it for momentum, position energy etc.
		Learn how to use different special functions which are helpful in several physical phenomena.		Able to know about Eigen energy values, parity etc.
		Understand the basic concept regarding Special Theory of Relativity.		Students Understand basics of quantum mechanics using Schrödinger wave equation.
	PHY502	**Solid State Physics**	**PHY602**	**Material Science**
		Understand about the crystal systems and various terms related to crystal structure with basic knowledge of different crystal structures.		Students understand different types of materials their properties, classification.
		Able to learn about the confirmation of solid structure using x ray diffraction techniques.		Understand advance , smart, nano materials
		Learn to calculate different physical parameters like lattice constant, interplanar distances using the concepts involved in diffraction technique.		Learn Mechanical, Thermal, Electrical Properties of material.
		Understand the concept of reciprocal lattice and its different properties.		Understand basic concept of Dislocations and Plastic deformation.
		Will learn the concept of UV spectroscopy and understand the basics of bonding in solids.		Students understand Atomic Diffusion and its mechanism. Learn state and derive Fick's laws.
		Learn lattice heat capacity of solids, Classical, Einstein, Debye theory of specific heat of solids.		Understand how to draw phase diagram.
		Able to know about Fermi energy, position of Fermi energy in semiconductors.		Study classification and interpretation of phase diagram.
		Able to distinguish between metals, semiconductor and insulators and understand concept of hole.		Learn about Binary phase diagram
	PHY 503	**Atomic and Molecular Physics**	**PHY 603**	**Nuclear Physics**
		Students are able to ….		Students are able to ….
		Apply the concept and knowledge of Atomic and Molecular Physics to understand and solve the real life problems.		Apply the concept and use of knowledge of Nuclear Physics to understand and solve the real life problems.

Course Outcomes (Science Faculty)				
Class / Dept.	**Course Code**	**Outcomes (Sem. I, III & V)**	**Course Code**	**Outcomes (Sem. II, IV & VI)**
		Understanding of the different types of spectra		Understanding of nuclear reactions and nuclear energy.
		Understand the concepts of Zeeman s.		Understanding nuclear power generation processes.
	PHY 504(A)	**Electronics II**	**PHY 604**	**Modern and Applied Physics**
		The course is helpful for the students to understand the basic of semiconductor and components like UJT, SCR, FET, MOSFET and operational amplifier It will build applied background for design and applications of electronics circuit & component.		The course is helpful for the students to understand Plank's Quantum theory
		Understand basic concepts about semiconductor devices		Understand basic concepts of Bohr's and Sommerfield theories of hydrogen atom.
		Learn different types of power supply.		Learn Matter Waves (Foundation of Quantum mechanics).
		Understand basic circuit and configurations of differential amplifierand CMRR.		Understand Fiber Optics
		Learn important terms and applications of OPAMP.		Learn Holography and its application
		Well learning and applied knowledge of devices such as Counters, Multiplexor and Timer in digital electronics		Introduction to bioelectricity
		Students equipped with the knowledge provided in the course will be able to participate in design, development and operation in the different area of electronics system.		Understand basic concepts of Modern and Applied Physics
	PHY 505	**Solar Energy and applications**	**PHY 605**	**Basic Instrumentation Skills**
		Concept of Solar Radiations		Students understand Use of basic measuring instruments
		Solar Collectors		Electrical quantity measuring instruments
		Solar Photovoltaics		Cathode Ray Oscilloscope
		Solar Thermal Applications		Signal Generators and Analysis Instruments
		Solar PV Applications		Digital Instruments
	PHY 506(A)	**Technical Electronics- I**	**PHY 606 (A)**	**Technical Electronics- II**
		Students are able to ….		Students are able to ….
		Apply the concept of use of knowledge of Technical Electronics to real life problems.		Apply the concept of use of knowledge of Technical Electronics to real life problems.
		Understanding the concept of power supply in real life.		Understanding of the course will create scientific temperament.
		Understand the concept and applications of optoelectronics devices		Understanding the operating principle of modern home appliances.
	PHY 507	**Physics Practical Course-I**	**PHY 607**	**Physics Practical Course – I**
		Acquire skills of physics experimentation.		Determine the surface tension by different method.
		Able to determine the movement of inertia by Bifilar suspension.		Surface tension by soap bubble method.
		Determine Y by Koenig's method.		Study of I-V characteristics of photocell
		Able to find out resistivity of semiconductor materials using		Able to find out viscosity of various liquids by rotating cylinder

Course Outcomes (Science Faculty)				
Class / Dept.	**Course Code**	**Outcomes (Sem. I, III & V)**	**Course Code**	**Outcomes (Sem. II, IV & VI)**
		four probe method.		method.
		Determination of circular aperture of LASER		Determination of 'g' by conical pendulum.
	PHY 508	**Physics Practical Course-II**	**PHY 608**	**Physics Practical Course – II**
		Students are able to ….		Students are able to ….
		Develop practical skill & scientific approach.		Develop practical skill & scientific approach.
		Operate electrical and electronic equipment's.		Operate electrical equipment's.
	PHY 509	**Physics Practical Course-III or Project work-I**	**PHY 609**	**Physics Practical Course-IIII or Project work- II**
		Learn about Project Selection.		Perform Experimental work on selected title of project.
		Understand Literature Search Strategy and Literature Review.		Characterize the samples, if any.
		Able to plan Project.		Discuss and analyze the results.
		Communicate effectively during the seminar on the selected topics. Will learn to prepare project presentation by PPT on LCD projector.		Draw conclusions. Students perform his project presentation by PPT on LCD projector
FYBSC CHEM.	**CH-101 (Sem. I)**	**Physical and Inorganic Chemistry-I (Section A)**	**CH-201 (Sem. II)**	**Physical and Inorganic Chemistry-II (Section A)**
	(Sem. I)	Ability to develop of conductance measurement	**(Sem. II)**	A student knows the general properties of organic compounds, applications of organic compounds in everyday life.
		Students understand physical properties like surface tension and application in soap and detergent.		A student knows about hydrocarbon and its reaction.
		Student understands the mathematical operation is used inchemistry.		Students understand the reaction and properties of Haloalkanes and haloarenes.
		Student understands the periodic table and properties of elements and its periodic properties.		A student knows reaction of Alcohols, phenols and ethers.
		Convert scientific equation in straight line to get physical parameter for slope and intercept		Student understands the VSEPR theory and its application and physical properties.
	CH-102 (Sem. I)	**Organic and Inorganic Chemistry-I (Section B)**	**CH-202 (Sem. II)**	**Organic and Inorganic Chemistry-II (Section B)**
		Understand fundamentals of organic chemistry with aliphatic & aromatic compounds.		Study IUPAC names of aldehydes & ketones, Reactions & synthesis of aldehydes & ketones.
		Understand IUPAC system of alkanes, alkenes & alkynes.		Preparation, reactions & properties of carboxylic acids & their derivatives, IUPAC name s of acids, esters, acid chlorides & amides.
		Study synthesis & reactions of alcohols, phenols & ethers.		Determine the Molecular weight, formula weight, equivalent weight of organic compounds.
		Able to define acids, bases, buffer solutions, Handersons equations.		Able to distinguish covalent bond & ionic bond, study types of overlap.
	CH-103 (Sem. I)	**Chemistry Practical-I (Based on Section A and B)**	**CH-203 (Sem. II)**	**Chemistry Practical-II (Based on Section A and B)**
		Ability to handle various glassware's and calibration of burette, pipettes, volumetric flasks.		Students should understand fundamental principles of chemical analysis.
		Knows terms like heat of solution, equivalent weights, density,		Students should understand organic qualitative analysis, knows

Course Outcomes (Science Faculty)				
Class / Dept.	**Course Code**	**Outcomes (Sem. I, III & V)**	**Course Code**	**Outcomes (Sem. II, IV & VI)**
		viscosity		melting points, boiling points, types of organic compounds.
		Understand inorganic qualitative analysis & quantitative analysis.		Students can operate various chemical equipment's.
		Students develops practical skill & scientific approach.		Able to correlate theoretical concept with practicals.
SYBSC CHEM.	**CH-301**	**Physical and Inorganic Chemistry**	**CH-401**	**Physical and Inorganic Chemistry**
		Student understands the colligative properties and correlation.		Student understands the thermodynamic properties is used in chemistry
		Student understands theGeneral characteristics of d-block elements, General Properties of Metals and different process in metallurgy.		Student understands the electrochemical cell and its application.
		Student understands the Solubility, Factors affecting solubility, Types of solutions, Different way of expressing the concentration of solution		Student understands Basic concepts of coordination chemistry
	CH-302	**Organic and Analytical Chemistry**	**CH-402**	**Organic and Analytical Chemistry**
		Review the concept of isomers, stereoisomers, free rotation. Optical isomers, geometrical isomers.		
		Study of amines, synthesis & reactions of amines.		Knows importance of synthetic reagents & their applications.
		Definition and approaches, solvent system concept, Lux-flood concept, Lewis concept, Generalized Acid-base concepts.		Students understands Organometallic compounds.
		Able to know heteroatoms such as N, O & S & study five & six membered heterocyclic compounds.		Students understands the MOT of various compounds. Interaction between s-s, s-p, p-p, p-d and d-d combination of orbitals
		Students understands separation techniques like chromatography & types of chromatography.		Students understands Complexes, ligands, types of ligands, chelates, chelating agents., Applications of complexometric titration
	Skill Enhancement Course SEC-1	**Basic Analytical Chemistry**	**Skill Enhancement Course SEC-2**	**Advanced Analytical Chemistry**
		Knows about definition of analysis, types of analysis, able to define qualitative analysis & quantitative analysis.		Students understands gravimetric analysis, precipitation process &various steps in gravimetric analysis.
		Able to understand accuracy, precision & significant figures, rounding off in data.		Students understands Oxidation, reduction, redox reaction, oxidising agents, reducing agents, redox titrations, Detection of end point- redox indicators, self indicator and starch indicator
		Knows importance of sampling minimization of errors		
		Students understands the mechanism of acid base titration.		
	CH-303	**Chemistry Practical's**	**CH-403**	**Chemistry Practical's**

Course Outcomes (Science Faculty)				
Class / Dept.	**Course Code**	**Outcomes (Sem. I, III & V)**	**Course Code**	**Outcomes (Sem. II, IV & VI)**
		Students should understand colligative properties like elevation in boiling points, depression in freezing points.		Students can evaluate thermodynamic parameters. ΔG, ΔH, ΔS of the cell
		Use of potentiometer for determination of standard electrode potential.Students can perform conductometric titration.		Students can perform critical solution temperature of phenol-water system
		Students can perform volumetric analysis. Students Can carry separation of mixtures using chromatographic techniques.		Students Can conduct organic qualitative analysis with elemental analysis. Students can perform gravimetric, qualitative analysis also know about preparation of Inorganic metal complexes.
		Students are able to conduct organic preparations & metal complexes.		Students can Determination of molecular weight of liquid by steam distillation technique
	CH-304	**Basic Analytical Chemistry (Skill Enhancement Course)**	**CH-404**	**Basic Analytical Chemistry (Skill Enhancement Course)**
		Understand the importance of analytical chemistry in analysis of compounds by titrimetric, gravimetric and instrumental methods.		To understand oxidation, reduction, oxidising agent, reducing agents.
		Know the importance of sampling methods and ways of interpretation of results of analysis.		**To study redox titrations with redox indicators, self indicators,**
		Learn the application of types of titrations for quantitative analysis of the samples.		To learn complexometric titrations and applications of complexometric titrations.
		To learn techniques of chromatography for separation of components in the mixture.		To understand the concept of gravimetric analysis and study. estimation of Ba as $BaSO_4$, Ni as Ni-DMG, Pb as $PbCrO_4$
TYBSC	**CH-501**		**CH-3601**	
		Understand the significance of wave function and postulates of quantum mechanics.		Analyze the rotational spectra of diatomic molecules and determine the bond length.
		Deduce rate equations and half-life equations for first and second order reactions		Explain and apply the radioactivity principles for various chemical and biological investigations.
		Draw and explain the one and two component system phase diagrams.		Describe the mechanism of fluorescence, phosphorescence and photochemical reactions.
		Explain the principles of electrode processes and apply them during Practicals.		Analyze the given crystal structure and determine the indices of planes, inter- planer distances and type of crystal structure.
	CH-502		**CH-602**	
		Learn about the VSEPR theory and how it can be used to explain molecular shapes.		Learn about basic principles and synthesis of nanomaterials.
		Learn about the VBT to describe the formation of covalent bonds in terms of atomic orbital overlap.		Learn about classification and composition of alloys.
		Learn about stability of complexes using CFSE.		Learn about types manufacture and applications of fertilizers.
		Learn about MOT to draw energy diagrams and to predict bond		Learn about classification, composition and processing of cement

Course Outcomes (Science Faculty)				
Class / Dept.	**Course Code**	**Outcomes (Sem. I, III & V)**	**Course Code**	**Outcomes (Sem. II, IV & VI)**
CHEM.		order		
	CH-503		**CH-603**	
		Students will learn organic reactions like nucleophilic substitution, electrophilic substitution, nucleophilic addition, electrophilic addition and elimination		Students should understand spectrophotometric analysis, principles & working of spectrophotometers.
		Students will be able to write/ explain mechanisms of those types of reactions		Knows the difference between emission &absorptionchromatography. Knows about plasma emission spectrometry
		Students will understand how a reaction takes place in one or more steps		Able to understand atomic absorption sprctrometry& various types of interferences.
		Students will understand the types of intermediates formed in different reactions		Principle, Instrumentation and applications of Turbidimetry and Nephelometry.
	CH-504		**CH-604**	
		Students should understand distribution coefficients, distribution ratio, solvent extraction process.		Students should understand spectrophotometric analysis, principles & working of spectrophotometers.
		Application of Ion Exchange Chromatography method for the separation of cations and anions using different types of resins		Knows the difference between emission & absorption chromatography. Knows about plasma emission spectrometry.
		Knows basic principles and working of HPLC applications of high performance of liquid chromatography.		Able to understand atomic absorption sprctrometry& various types of interferences.
		Understands difference between different types of chromatography. Understand the concept of gas chromatography.		Principle, Instrumentation and applications of Turbidimetry and Nephelometry.
	CH-505		**CH-605**	
		Basic requirements of Chemical Industry, different terms, operations and processes involved in chemical Industry.		Understand Occurrence of Petroleum, theories of formation of Petroleum and different terms Viz. Knocking, Anti-Knock Compounds, Octane number, Cetane number, Gasohol and Power alcohol etc. i.e., Toluene from petroleum with their uses.
		Describe Copy Right Act, Patent Act and Trade Marks, Bureau of Indian Standards (BIS) and International Organization for Standardization (ISO).		Manufacturing processes involved in Industrial Organic Synthesis such as Methanol, Isopropanol, Glycerol, Acetylene and Aromatic hydrocarbon
		Basic requirements, raw materials, different processes and operations involved in Sugar Industry and also different grades of sugar and uses of by-products of sugar industry.		Gain comprehensive knowledge of cutting-edge developments in a field of different chemical industries.
		Importance of fermented products, basic requirements, theory and process of alcohol making, fractional distillation and various terms involved in Fermentation Industry.		Describe the industrial production of a number of important organic and inorganic compounds / chemicals and products of end use.
	CH-506 (B)		**CH-606(C)**	
		Students known about Composition and structure of atmosphere,		Define terms like monomer, polymer, polymerization,

Course Outcomes (Science Faculty)				
Class / Dept.	**Course Code**	**Outcomes (Sem. I, III & V)**	**Course Code**	**Outcomes (Sem. II, IV & VI)**
		Chemical and photochemical reactions in atmosphere		polydispersity index, etc., classify polymers based on their origin, native backbone chain, and thermal response. Identify different mechanisms of polymerizations *viz*. free radical, ionic, and condensation polymerizations.
		Students got knowledge about Water resources , Microbially mediated aquatic reactions, nitrogen cycle, iron and manganese bacteria		Know glass transition temperature and its determination, various ways to express molecular weights of polymers and polydispersity index.
		Students got knowledge about Water treatment and effluent management		Familiar with preparation, properties, and applications of industrially mportant selected polymers.
		Students got knowledge about various Instrumental methods in environmental analysis.		Distinguish techniques of polymerization based on physical conditions required for the preparation of polymers in laboratory or industry.
	CH-507	**Physical Chemistry Practical**	**CH-607**	**Physical Chemistry Practical**
		Students will able to calibrate and handle instruments like conductometer, potentiometer, pH meter, colorimeter, spectrophotometer, polarimeter.		Students will get basic analytical and technical skills to work effectively in the various fields of chemistry
		They have ability to perform accurate quantitative measurements with an understanding of the theory and use of contemporary chemical instrumentation, interpret experimental results, perform calculations on these results and draw reasonable, accurate conclusions		They will have ability to present scientific and technical information resulting from laboratory experimentation in both written and oral formats.
		They get skills required in chemistry such as the proper handling of apparatus and chemicals.		
	CH-508	**Inorganic Chemistry Practical**	**CH-608**	**Inorganic Chemistry Practical**
		They have ability to do chemical analysis by Gravimetric Estimations, Volumetric analysis.		They have ability to do Inorganic Qualitative Analysis of given binary mixture.
		They know about the Inorganic Preparations of complexes.		They have ability to do Ore Analysis.
		They have ability to do Colourimetric Analysis for metal present in sample.		They have ability to do alloyAnalysis by various method.
		They have ability to do Separation and identification of binary mixture of cations.		
	CH- 509	**Organic Chemistry Practical**	**CH-609**	**Organic Chemistry Practical**
		They have ability to do Separation of Binary Mixtures and Qualitative Analysis.		They have ability to do various Organic Preparations
		They have ability to do Organic Estimations.		They have ability to do various Preparation of Derivatives
	MTH-101 (Sem. I)	**Matrix Algebra**	**MTH-201 (Sem. II)**	**Ordinary Differential Equations**
		Understand concepts on matrix operations and rank of the matrix.		Upon successful completion of this course the student will be able to:

Course Outcomes (Science Faculty)				
Class / Dept.	**Course Code**	**Outcomes (Sem. I, III & V)**	**Course Code**	**Outcomes (Sem. II, IV & VI)**
FYBSC MATH		understand use of matrix for solving the system of linear equations.		Understand basic concepts in differential equations.
		Understand basic knowledge of the eigen values and eigen vectors.		Understand method of solving differential equations
		Apply Cayley-Hamilton theorem to find the inverse of the matrix.		Understand use of differential equations in various fields.
		Know the matrix transformation and its applications in rotation, reflection, translation.		
	MTH-102 (Sem. I)	**Calculus**	**MTH-202 (Sem. II)**	**Theory of Equations**
		Understand basic concepts on limits and continuity.		Students can find out roots of any equation of degree less than or equal to five.
		Understand use of differentiations in various theorems.		Theory of equations is highly useful in various subjects like algebra, linear algebra, calculus, ordinary and partial differential equations etc.
		know the Mean value theorems and its applications.		
		Make the applications of Taylor's, Maclaurin's theorem.		
		know the applications of calculus.		
	MTH 103(B) (Sem. I)	**Graph Theory**	**MTH 203(B): (Sem. II)**	**Numerical Analysis**
		Can understand basic of graph theory & operations on graph		understand basic concepts of methods of solutions of equations viz. bisection, iteration, Newton-Raphson methods and method of false position.
		Can learn connected graph & various problems related to planner graphs.		understand methods of curve fitting viz. Gauss's forward and backward difference formulae and Lagrange's interpolation formula.
		Can learn very popular Eulerian & Hamiltonian graph & colouring of the graph.		use of curve fitting such as least square, polynomial and exponential fittings for set of given data.
		Can learn trees & spanning trees, various algorithms to find smallest Hamiltonian cycle.		use Taylor's series, Euler's method. Modified Euler's method., Runge Kutta methods for solving ordinary differential equations.
SYBSC MATH	**MTH-301**	**Calculus of Several Variables**	**MTH-401**	**Complex Variables**
		Upon successful completion of this course the student will be able to understand:		The course is aimed to introduce the theory for functions of complex variables
		limit and continuity of functions of several variables		Students will understand the concept of analytic function
		fundamental concepts of multivariable Calculus.		Students will understand the Cauchy Riemann Equations
		series expansion of functions.		Students will understand harmonic functions
		extreme points of function and their maximum, minimum values at those points. meaning of definite integral as limit as sums.		Students will understand complex integrations
		how to solve double and triple integration and use them to find area by double integration and volume by triple integration.		Students will understand calculus of residues.
	MTH-302(B)	**Theory of Groups**	**MTH-402(B)**	**Differential Equation and Numerical methods**

Course Outcomes (Science Faculty)				
Class / Dept.	**Course Code**	**Outcomes (Sem. I, III & V)**	**Course Code**	**Outcomes (Sem. II, IV & VI)**
		Upon successful completion of this course the student will be able to: understand group structures which is useful to understanding ideas of modern mathematics.		Students will aware of formation of differential equations and their solutions
		understand Euler's, LaGrange's, and Fermat Theorem		Students will understand the concept of Lipschitz condition Students will understand method of variation of parameters for second order L.D.E.
		understand concepts automorphism of group		Students will understand simultaneous linear differential equations and method of their solutions
		understand concepts of homomorphisms and isomorphisms.		Students will understand Pfaffian differential equations and method of their solutions
		Students will understand basic concepts in codding theory.		Can understand difference equations linear & homogeneous difference equations.
	MTH-303	**Practical Course based on MTH-231, MTH-232**	**MTH-403**	**Practical Course based on MTH-241, MTH-242**
		limit and continuity of functions of several variables		Students will understand the concept of analytic function
		series expansion of functions		Students will understand the Cauchy Riemann Equations
		how to solve double and triple integration and use them to find area by double integration and volume by triple integration		Students will understand harmonic functions
		understand solutions to polynomial equations .		Can understand difference equations linear & homogeneous difference equations.
	MTH-304 Skill Enhancement-I	**Set Theory and Logic**	**MTH-404 Skill Enhancement-II**	**Vector Calculus**
		Uses of language of set theory, designating issues in different subject of mathematics.		Understand scalar and vector product.
		Understand the issues associated with different types of finite and infinite sets via countable and uncountable sets.		To understand vector valued functions and their limits and continuity and use them to estimate velocity and acceleration of particles.
		Knowledge of concept and method of mathematical logic , set theory, relational calculus and concept concerning functions. Understanding the role of propositional and predicate calculus.		Calculate curl and divergence of a vector filed
		Able to provide logical mathematical reasoning, formulate theorems and definitions.		Set up and evaluate line integrals of functions along curves.
	MTH-501	**Metric Spaces.**	**MTH-601**	**Measure Theory**
		Understand the Euclidean distance function on R^n and appreciate its properties, and state and use the Triangle and Reverse Triangle Inequalities for the Euclidean distance function on R^n		Learn measurable sets. Learn the concept of Sets of measure zero.
		Explain the definition of continuity for functions from R^n to R^m and determine whether a given function from R^n to R^m is continuous		can learn measurable functions

Course Outcomes (Science Faculty)				
Class / Dept.	**Course Code**	**Outcomes (Sem. I, III & V)**	**Course Code**	**Outcomes (Sem. II, IV & VI)**
TYBSC **MATH**		Explain the geometric meaning of each of the metric space properties (M1) – (M3) and be able to verify whether a given distance function is a metric		Understand why a more sophisticated theory of integration and measure is needed.
		Distinguish between open and closed balls in a metric space and be able to determine them for given metric spaces		Show that certain functions are measurable.
		Define convergence for sequences in a metric space and determine whether a given sequence in a metric space converges		Understand properties of the Lebesgue integrals.
		State the definition of continuity of a function between two metric spaces.		Can solve Lebesgue integral for unbounded functions & know various inequalities.
	MTH-502	**Real Analysis - I**	**MTH-602**	**Real Analysis - II**
		After successful completion of this course, students are expected to:		After successful completion of this course, students are expected to: solve Convergence and divergence of sequences
		Understand the structure of Riemann Integration		use various tests for absolute convergence,
		Represent lattice in diagrammatic form.		Can understand point wise & uniform convergence of sequence of functions &Cauchyes criteria.
		Understand the Improper integrals with finite limit and infinite limit their properties.		Understand Fourier series for even and odd functions.
		Learn the concepts of Beta and Gamma Integrals		understand Sine and cosine series in half range
	MTH-503	**Algebra**	**MTH-603**	**Linear Algebra**
		After successful completion of this course, students are expected to		After successful completion of this course, students are expected to solve Rank and nullity theorem
		know the use Permutation Groups		use Cayley Hamilton theorem, Euler's theorem and finding Eigen values and Eigen vectors of linear transformation.
		know normal Subgroups and group isomorphisms		understand Kernel and image of linear transformations.
		Know Ideals in rings, Quotient Rings and Isomorphism of Rings		understand Singular and non-singular linear transformations Unit Topics Lectures
		Know polynomial Rings and irreducibility of polynomials		
	MTH-504	**Lattice Theory**	**MTH-604**	**Ordinary and Partial Differential Equatio**
		After completing this syllabus students will able to Understand the structure of poset and lattice.		Know the exact differential equation and its solution.
		Represent lattice in diagrammatic form		Solve the exact differential equations by using integrating factor.
		.Understand the terms Maximal element, Minimal element, Greatest element, Least elements.		Solve the linear differential equation of second order by using various methods.
		Learn the concepts of ideals and their properties		To solve partial differential equation of first order.
		Learn the concepts of homomorphism.		To solve partial differential equation of second order.
		Understand modular and distributive lattice and their interrelation.		
		Understand complemented and relatively complemented lattice		

Course Outcomes (Science Faculty)				
Class / Dept.	**Course Code**	**Outcomes (Sem. I, III & V)**	**Course Code**	**Outcomes (Sem. II, IV & VI)**
	MTH-505	**Integral Transform**	**MTH-605**	**Graph Theory**
		Students will be able to know the use of Fourier transform in Wave equation, solving Boundary Value Problems, also problem on Heat-flow in semi-infinite bar.		To understanding and improve operation on graph.
		Students will be able to use Fourier transform in communication theory and signal analysis, image processing and filters, data processing and analysis, solving partial differential equations for problems on gravity.		To understand graph, trees, matrix representation of graphs.
		Students will be able to use Z-transform in the characterization of Linear Time-Invariant system (LTI), in development of scientific simulation algorithms		. To understand homomorphism of graph
	MTH-506(A)	**C-Programming**	**MTH-606(B)**	**Operation Research**
		Understanding a functional hierarchical code organization.		Formulate and solve problems as networks and graphs. develop linear programming (LP)
		Ability to define and manage data structures based on problem subject domain		To solve LPP by simplex methods
		Ability to work with textual information, characters and strings.		models for shortest path, maximum flow, minimal spanning tree, critical path, minimum cost flow, and transportation problems.
		Ability to work with arrays of complex objects.		Solve the problems using special solution algorithms.
		Understanding a concept of object thinking within the framework of functional model.		Understand the mathematical tools that are needed to solve optimisation problems.
		Understanding a defensive programming concept. Ability to handle possible errors during program execution.		To solve Game theory problems
	MTH-507	**Practical Course based on (MTH-501,502)**	**MTH-607**	**Practical Course based on (MTH-601,602)**
		Explain the geometric meaning of each of the metric space properties (M1) – (M3) and be able to verify whether a given distance function is a metric		Explain the geometric meaning of each of the metric space properties (M1) – (M3) and be able to verify whether a given distance function is a metric
		Distinguish between open and closed balls in a metric space and be able to determine them for given metric spaces		Distinguish between open and closed balls in a metric space and be able to determine them for given metric spaces
		Represent lattice in diagrammatic form.		Represent lattice in diagrammatic form.
		Learn the concepts of Beta and Gamma Integrals		Learn the concepts of Beta and Gamma Integrals
	MTH-508	**Practical Course based on (MTH-503,504)**	**MTH-608**	**Practical Course based on (MTH-603,604)**

Course Outcomes (Science Faculty)				
Class / Dept.	**Course Code**	**Outcomes (Sem. I, III & V)**	**Course Code**	**Outcomes (Sem. II, IV & VI)**
		To solve problems on normal Subgroups and group isomorphisms		use Cayley Hamilton theorem, Euler's theorem and finding Eigen values and Eigen vectors of linear transformation.
		Learn the concepts of ideals and their properties		understand Kernel and image of linear transformations.
		Learn the concepts of homomorphism.		Know the exact differential equation and its solution.
		Understand complemented and relatively complemented lattice		Solve the exact differential equations by using integrating factor
	MTH- 509	**Practical Course based on (MTH-505,506)**	**MTH-609**	**Practical Course based on (MTH-605,606)**
		Ability to work with arrays of complex objects		learn the unbounded, alternative and infeasible solutions of LPP by graphical and simplex method.
		Understanding a defensive programming concept. Ability to handle possible errors during program execution		understand the saddle point, maximin-minimax principal, two person zero sum game. use of dominance property to find the solution games
		Calculate the curl and divergence of a vector field.		Can understand boundary value problems in ordinary and partial differential equations
FYBSC COMP. SC.	**CS-101 (Sem. I)**	**Essentials of Computer**	**CS-201 (Sem. II)**	**Internet Computing**
		Understand the History of Computers and Basic concepts of computer.		Understand the Types of Website, it's Structure, Site Organization Model , Site Planning and Testing.
		Aware about various types of Computers, types of input and output devices		Understand how to design website with different website development models.
		Preparation of Algorithm and Flowchart of Program.		Know the different page types on websites and it's navigations.
		Learn computer networks, its types and basics of Internet Understand computer viruses and its types.		Designing website using HTML language & Design advanced website using CSS.
	CS-102 (Sem. I)	**C Programming Language-I**	**CS-202 (Sem. II)**	**C Programming Language-II**
		Develop their programming skills.		Design programs using Functions, Pointers , Structures and Unions in C language.
		Be familiar with programming environment with C Program structure.		Write a program using File Handling.
		Declaration of variables and constants.		Writing programs for drawing different graphical shapes.
		Understand operators, expressions and pre-processors & Understand arrays , it's declaration and uses.		
	CS-103 (Sem. I)	**LAB Course on Essential of Computer and C programming**	**CS-203 (Sem. II)**	**LAB Course on Internet Computing and C Programming**
		Understand Introduction to Computer, Input devices, Output devices, Booting – POST.		Know Demonstration of the Basic Tags of HTML.
		Know Installation of Software and operating system		Demonstrate the List Tags. Understand Design Web Page showing information of your college using various text
		Study of DOS Commands		Write program using Function with return and Function with argument.
		Know Creation of an e-mail account, sending and receiving emails with attachment		Program using user defined function to find length of string Write the program using std. string functions (likestrlen (). strcat(), strcmp(), strrev(), strcpy()etc.)

Course Outcomes (Science Faculty)				
Class / Dept.	**Course Code**	**Outcomes (Sem. I, III & V)**	**Course Code**	**Outcomes (Sem. II, IV & VI)**
SYBSC COMP. SC.	**CS-DSC 2 C : COMP 301**	**Data Structure-I**	**CS-DSC 2 D : Comp-401**	**Data Structure – II**
		Know what is data structure and basic algorithmic notations.		Definition and Concept of Tree
		Analyse the time and space requirement of any algorithm.		Definition and Concept of Graph
		Understand different linear data structures for conversion of mathematical expressions and polynomial representations.		Understanding Sorting
		Know about file structures, Stacks, Queues and Linked List		Searching Techniques
	CS-DSC 2 C : COMP-302	**Programming in C++-I**	**CS-DSC 2 D : COMP-402**	**Programming in C++-II**
		Introduction to C++		Concept of Constructor and Destructors
		Understand Classes and objects.		Inheritance and Extending Classes
		Study of Functions in C++		Exception Handling and Templates & Introduction to Standard Template Library
		Understanding about Function Overloading and Operator Overloading		Working with Files
	CS SEC-I (Skill Enhancement Course-I)	**Software & Hardware Installation Skills**	**CS SEC-II (Skill Enhancement Course-II)**	**Network Security**
		Operating System Basics & Installation		Introduction to Network Security
		Various types of Software Installation		Malicious Software
		Device Installation		Types of Attack and Firewalls
		Diagnostic Tools & PC Maintenance		Intrusion Detection System (IDS)
		Basic Network Introduction & Installation		Understanding System security
	CS-DSC 2 C: Lab Course on COMP 304	**PRACTICAL COURSE**	**CS-DSC 2 D : Lab Course on COMP 404**	**PRACTICAL COURSE**
		To write a program to implement Stack operations: push, pop, peep, change, Display		Implement Selection sort technique
		Program to implement Linear Queue operations : Insert, Delete, Display		Implement Selection sort technique
		Program to implement singly linked list with operations. i)create ii)insert iii)delete iv)find		Write a C++ program to demonstrate all types of Inheritances
		Demonstrate the memory management operators: new, delete		Write a C++ program to demonstrate the concept of virtual function.
		Write a C++ program to demonstrate the array of objects		Write a C++ program to demonstrate exception handling mechanism
		Write a C++ program to demonstrate inline function		Write C++ program to implement concept of file Handling
	CS-501	**System Programming**	**CS-601**	**Operating System**
		Get aware about system software's and their tools like Editors and Debug Monitors.		know about functions and services of operating system.

Course Outcomes (Science Faculty)				
Class / Dept.	**Course Code**	**Outcomes (Sem. I, III & V)**	**Course Code**	**Outcomes (Sem. II, IV & VI)**
TYBSC COMP. SC.		Get familiar with language processing activities.		aware about different CPU scheduling algorithms.
		Understand detail working of Assembler, Macro and Macro Preprocessor, Compiler and linker & Loader.		get familiar with different memory management techniques.
				understand different disk and drum scheduling algorithms as well as deadlock concepts.
	CS-502	**Database Management System**	**CS-602**	**MS SQL Server**
		Get aware of Describing & storing data.		understand features and data types in SQL server.
		Know about E-R Model by overview of database design.		create and manipulate databases for various applications.
		Get familiar with Conversion of ER to Relational model.		use procedures and trigger for performing complex operation on databases.
		Know about functional dependency and Data Normalisation. & Understand Database Implementations.		handle errors using exception handling concepts.
	CS-503	**Software Engineering**	**CS-603**	**Internet Programming using PHP**
		Get aware of evaluation of software and Software Development Life Cycle (SDLC).		understand how PHP works with lexical structure of it.
		Know about Software Development Model.		program for different applications using arrays, functions and strings.
		Get knowledge of Requirement Analysis and Specification in software engineering.		aware about different web techniques used in PHP.
		Get knowledge of Design Concepts in software engineering & Know about Cohesion & Coupling, Decision Table & Decision Tree, Data flow Diagram		integrate PHP with MYSQL
	CS-504	**Computer Aided Graphics**	**CS-604**	**Theoretical Computer Science**
		differentiate between interactive and non-interactive graphics.		Understand what is Push down Automata and its applications.
		explore different line and circle drawing algorithms.		understand concepts of Context free grammar and normalization of CFG.
		perform 2D and 3D transformation on different images & know about detail working of image clipping and windowing.		convert regular expression to Finite Automata.
		understand raster graphics and hidden surface elimination.		Design Turing Machines for various applications like enumerator, function computer and universal turing machine.
	CS-505	**Programming in VBNET**	**CS-605**	**Computer Network**
		get aware about Net platform.		understand applications of network, network structures and protocol hierarchy
		understand looping structure, control flow statements and exception handling in VB.NET		aware about details of physical, datalink, network and transport layer of TCP/IP network model.
		understand object-oriented programming in VB.NET.		understand about different aspects of network security like firewalls, IP security and VPNs.
		program using ADO.NET		aware about attacks and Confidentiality used in cryptography.
	CS-506 B	**JAVA Programming-I**	**CS-606 B**	**JAVA Programming-II**
		Get knowledge JDK Environment.		program using graphical user interface with Swing classes.

Course Outcomes (Science Faculty)				
Class / Dept.	**Course Code**	**Outcomes (Sem. I, III & V)**	**Course Code**	**Outcomes (Sem. II, IV & VI)**
		Explore polymorphism using Function and Operator Overloading, overriding.		handle different kinds of events generated while handling windows.
		Understand the different aspects of hierarchy of classes and their extensibility.		create programs using menus and dialog boxes.
		Understand the concepts of streams and files & Write programs for handling runtime errors using exception.		program for websites using applets & understand advanced java concepts like JDBC and servlets.
	CS-Lab-507	**Lab on System Programming**	**CS-607**	**Lab on MS SQL Server**
		On completion of the course, students are able to develop system programs to provide basic applications for computing like line editor, interrupt handler, SMAC0 and lexical analyser.		On completion of the course, students are able to develop database management system using features and services provided by MS SQL Server.
	CS-Lab-508	**Lab on Programming in VB.NET, Computer Aided Graphics**	**CS-608**	**Lab on Internet Programming using PHP**
		On completion of the course, students are able to develop different programs for demonstrating different Computer graphics algorithms like circle, line drawing and clipping and filling as well as students can create dynamic web pages using VB.NET.		On completion of the course, students are able to develop interactive static as well as dynamic websites.
	CS-Lab-509 B	**Lab on JAVA Programming –I**	**CS-Lab-609 B**	**Lab on JAVA Programming II**
		On completion of the course, students are able to develop efficient programs which provides graphical user interface for easy handling of computers using JAVA.		On completion of the course, students are able to develop efficient programs which provides graphical user interface for easy handling of computers using JAVA.
FYBSC BOT.	**BOT-101 (Sem. I)**	**Microbial Diversity, Algae & Fungi**	**BOT-201 (Sem. II)**	**Diversity of Archegoniates**
		Understand the diversity among Bacteria, Viruses and Algae.		Students should understand technique of staining methods
		Understand the life cycle pattern of Bacteria, Viruses and Algae.		Understand the morphological diversity of Bryophytes and Pteridophytes.
		Understand the useful and harmful activities of Bacteria, Viruses and Algae		Understand the economic importance of the Bryophytes and Pteridophytes.
		Understand the Biodiversity of Fungi.		Know the evolution of Bryophytes and Pteridophytes.
	BOT-102 (Sem. I)	**Plant Taxonomy**	**BOT-202 (Sem. II)**	**Plant Ecology**
		Understand the diversity of angiosperms.		Understand scope and importance of the discipline
		Learn comparative account among the families of angiosperms.		Learn plant communities and ecological adaptations in plants.
		Know economic importance of the angiospermic plants.		know about conservation of biodiversity.
		Able to distinguish features of angiosperm families.		Study the botanical regions, vegetation of India and Maharashtra.
	BOT-103 (Sem. I)	**Practical (LAB – I)**	**BOT-203 (Sem. II)**	**Practical (LAB – II)**
		Students should understand technique of staining methods of bacteria, algae & fungi		Students should understand, Study of diversity of Bryophytes and Pteridophytes w.r.t systematic position and morphology.
		Study of Bacterial & viral disease w.r.t. causal organism, Symptoms and control measures.		Study of life cycle of Riccia, Funaria, Selaginella and Adiantum.
		Study of Life cycle of Spirogyra and Sargassum.		Study of life cycle of cycas&pinus.

Course Outcomes (Science Faculty)				
Class / Dept.	**Course Code**	**Outcomes (Sem. I, III & V)**	**Course Code**	**Outcomes (Sem. II, IV & VI)**
		Know botanical source/s, characteristics and utilities of Plants/ plant products.		Students should understand technique of staining methods
SYBSC BOT.	**BOT-301**	**Plant Anatomy**	**BOT-401**	**Plant Embryology**
		To know scope and importance of plant Anatomy.		To know scope and importance of Plant embryology.
		To study protective tissue systems.		Study of internal structure of micro and mega sporangium.
		To study normal secondary growth and primary structure of monocot and dicot plants.		To study pollination ,fertilization ,endosperm and embriyigeny.
		To study various tissue systems.		To give exposure of techniques in embryology.
	BOT-302	**Plant Physiology**	**BOT-402**	**Plant Metabolism**
		knows importance and scope of plant physiology		knows importance and scope of plant metabolism.
		Understand plants and plant cells in relation to water		study respiration in higher plants with particular emphasis on aerobic and anaerobic respiration.
		Study the different processes.		study the process of photosynthesis.
		Understand mechanism of absorption of water, gases and solutes.		To study about enzymes..
	BOT-303	**Botany Practical Course Based on Paper 301 & 302**	**BOT-403**	**Botany Practical based on Paper 401 & 402**
		Students should understand, study of internal anatomical structure of fundamental organs ,stem ,root and leaves of dicot and monocot plants.		To study of T. S of microsporangium , tapetum ,ovules and embryo sac .
		Study of internal anatomical structure of tissues with the function they perform.		Mounting of embryos from suitable seeds and seed dispersal mechanism.
		Understand the DPD by using the potato tuber		Able to determine the rate of photosynthesis
		Learn the rate of transpiration		Study of activity of catalyse enzymes .
	BOT-304 Skill Enhancement	Mushroom culture technology(SEC)	**BOT-404 Skill Enhancement**	Nursery and Gardening(SEC)
		To learn history, scope and importance of Mushroom culture tech.		To learn scope and importance of nursery and gardening.
		To understand nutritional and medicinal values of edible mushrooms.		To understand the tools and techniques of gardening.
		To know about the storage, marketing and various food preparations of mushrooms.		Importance of horticultural crops and products .
FYBSC ZOO.	**ZOO-101 (Sem. I)**	**Animal Diversity I**	**ZOO-201 (Sem. II)**	**Comparative Anatomy of Vertebrates**
		Understand the evolution, history of phylum.		To study the integument w.r.t. glands and digital tips
		Understand about the Non-Chordate animals.		To study the comparative skeletal system
		To study the external as well as internal characters of non-chordates.		To study the anatomy of various systems.
		To study the distinguishing characters of non-chordates. &theeconomical importance of Molluscs.		To study the various sense organs.
	ZOO-102 (Sem. I)	**Animal Diversity II**	**ZOO-202 (Sem. II)**	**Developmental Biology of Vertebrates**
		Understand the phylum Chordate.		To understand the process of gametogenesis

Course Outcomes (Science Faculty)				
Class / Dept.	**Course Code**	**Outcomes (Sem. I, III & V)**	**Course Code**	**Outcomes (Sem. II, IV & VI)**
Dept. of Zoology		Understand the basic concepts about chordates.		To understand the early embryonic development in frog & human.
		Understand the poisonous & non-poisonous snake.		To understand the late embryonic development in frog & human
		Study and understand the various systems, adaptation and dentition in Mammals.		To understand the structure of placenta & its function.
	ZOO-103 (Sem. I)	**Animal Diversity I & II**	**ZOO-203 (Sem. II)**	**Comparative Anatomy & Developmental Biology of Vertebrates**
		Understand the Systematic position and external morphology of Calotese versicolar.		To know about structure of sperms & ovum.
		Understand and study the various systems like Digestive systems		To understand the structure of placenta & its function.
		To study and understand the Scales, Fins, Arial adaptation and Dental formula.		To know evolution of aortic arche.
		Understand the Classification various classes of phylum Chordate e.Pisces, Reptiles, Aves and Mammals.		To study the various types of bones &skull in mammals.
SYBSC ZOO.	**ZOO-301**	**Physiology**	**ZOO-401**	**Genetics**
		To study and understand the concepts-physiology and its related branches		To study concept, scope and importance of genetics ,and its related branches.
		Understand the process of physiology of digestion		Understand the mendelian inheritance and its importance.
		Understand the reproductive physiology of mammals.		Understand the hereditary diseases in human.
		To study the histology of endocrine glands and hormonal secretion .		Able to know the process of lincage and crossing, human karyotype .
	ZOO-302	**Biochemistry**	**ZOO-402**	**Evolutionary biology**
		To study and understand the scope and branches of Biochemistry.		To understand the process of evaluation and its related branches to the students.
		To aware the students for various metabolisms such as protein ,carbohydrates and lipids occurring in body.		To aware the students about geological time scale and period of evolution .
		To increase awareness for disorders occurred in body related to above metabolisms in students.		Understand the process of formation of fossils and its importance in evolution.
		To aware about the Enzymes, its role and its related disorders in human..		To study evolution in horse and Darwin finches.
	ZOO-303	**Practical**	**ZOO-403**	**Practical**
		To identify functional groups of carbohydrates by qualative test.		Study of Evolutionary history of horse
		Estimation of total protein contents in given solution		Understand the dental formula of mammals
		To study the activity of salivary amylase enzyme under optimum conditions.		Study and understand the human human karytope analysis .
		To study types heman crystals in mammals.		To study the monohybrid and dihybrid ratios of mendelian

Course Outcomes (Science Faculty)				
Class / Dept.	**Course Code**	**Outcomes (Sem. I, III & V)**	**Course Code**	**Outcomes (Sem. II, IV & VI)**
				inheritance
	SEC-I Skill Enhancement	**APICULTURE**	**SEC-II Skill Enhancement**	**Medical DIGNOSTICS**
		Introduce the term apiculture to the students.		To study and understand the scope and branches of Medical Zoology.
		To aware the students and provides the economic importance of Apiculture.		To aware the students for various parasites and diseases which spreads in human with the help of study of host-parasite relationship.
		Understand the Bee keeping equipment's and apiary management		To increase awareness for the health in students.
		To study and understand the various species of Bees.		To aware about the typhoid, cholera like disease.
FYBSC ENV. STU.	**ENV. Studies**	**Environmental Studies for UG Courses**	**AEC (B)**	**Ability Enhancement Compulsory Course (AEC) Marathi**
		Understand multidisciplinary nature of environmental studies. Know about renewable & non-renewable resources. Understand the individual role in conservation of natural resources.		At the general level, students are acknowledged with Marathi literature, language and culture. It helps them.
		Know about structure & function of ecosystem. Study of forest ecosystem, grassland ecosystem & aquatic ecosystem.		
		Understand conservation of biodiversity at national & local levels. Study the different types of pollution &role of individual in prevention of pollution. Study human population & environment.		
SYBSC MAR.	**MARATHI**	To develop the interest in understanding the Marathi	**MARATHI**	To develop the interest in understanding the Marathi