Smt. Chandibai Himathmal Mansukhani College, Ulhasnagar – 3

LEARNING OUTCOMES

ARTS FACULTY

DEPARTMENT OF ECONOMICS AND BUSINESS ECONOMICS

1. Name of Department: Economics& Business Economics
2. Title of Programme: B.A. / ~~B.Sc.~~ / B.Com. / ~~B.M.M~~. (Strike out which is not required)
3. Programme outcome : In BA & BCOM the subject of Economics is introduced to understand the recent trends in the subject of Economics
4. Programme specific outcome: Economics & Business Economics
    1. Learning & reading Economics critically.
    2. Understanding why economic phenomenon occurs & how economic performance can improve.
    3. Enhancing the skills through problem solving & critical thinking.
    4. Reasoning skills develops by understanding the economic phenomenon.
    5. Employability skills develop.
5. Course outcome (separate for each course):BA- Economics

Course code	Title of the course	Course credit	Course outcome
1.FYBA UBA 1.35 UBA 1.36	 Micro Economics I Micro Economics II	03 per sem	1.Helps to understand the economic Behaviour of the people in the society
2.301SYBA Paper II 401 3. 302SYBA Paper III 402 4. 303ASYBA (App) 5.303 CSYBA (App)	Micro Economics II Micro Economics III Economic Survey of India 2016-17 Maharashtra Economy Demography Entrepreneurial Development	03 per sem 03 per sem 03per sem 03per sem	2. Helps to understand the Behaviour of the Producers & the consumers in the markets. 3.Helps to understand the Macroeconomics & Economics of Maharashtra 4.Helps to understand the demographic variables of India & policies 5. Helps to create global competence skill development & motivation among young learners to become a successful entrepreneur.

Course code	Title of the course	Course credit	Course outcome
TYBA Economics	**SEM V**		
1.ECOMIE501	Microeconomics III	4	1.To provide an understanding in Micro economic theory 2.To understand the concepts related to economic growth 3. To equip the students with the knowledge about the fundamentals of Industrial economics & also the changing policies related to the Indian Industry in the globalized era. 4.To introduce the concepts, principles & methods of economic research based on qualitative & quantitative data 5. To understand the economic causes of environmental problems & environmental improvements. 6. It provides the basic understanding about the celebrated economists & their contribution starting from classical period & recent period too.
2.ECODEV502	Economics of Development	4	
3.ECOILE503	Industrial & Labour Economics	3	
4.ECORMB504	Research Methodology	4	
5.ECOENV505	Environmental Economics	4	
6.ECOHET506	History of Economic Thought	3	
	SEM VI		
1.ECOMA601	Macro Economics III	4	1. Helps to understand the formal modeling of macro-economic theory with analytical tools. 2.Helps to develop a systematic exposition of models of international trade 3. Helps to understand the issues in labour markets. Wage policy, trade unions & amicably solutions to industrial disputes. 4. Strengthen the critical thinking and listening skills in conducting economic
2. ECOINT602	International Economics	4	
3. ECOILE603	Industrial & Labour Economics	3	

4.ECORMC604	Research Methodology	4	research and to device research outcomes. 5. The course helps to understand the economic development sequence. 6. The course helps to understand the changing phase of International Trade Policy & Practice.
5.ECODTE605	Development theory & Experience	4	
6.ECOITPP606	International Trade, policy & Practice	3	

Business Economics

Course code	Title of the course	Course credit	Course outcome
UBCOMFSI	Business Economics I	03	To equip the students to understand the working of a business unit in the economy
UBCOMFSI	Business Economics II	03	
UBCOMSSI	Business Economics II	03	Helps the students to understand Macro Economic Theories
UBCOMSSI	Business Economics III	03	
UBCOM	Economics Systems(App. Comp)	03 Per sem	Helps the students to understand Economic Systems
UBCOMTSI	Business Economics IV	03	Helps the students to understand policy changes in India
UBCOMTSI	Business Economics V	03	
	Labour Welfare & Practices	03 Per sem	Understands the labour policies & Acts

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LEARNING OUTCOMES

ARTS FACULTY

DEPARTMENT OF ENGLISH

Course Code	Title of the Course	Objective	Outcome
FYBA UAENG-101	English (Optional) Introduction to Literature	1. To acquaint students with the characteristics of various literary genres 2. To develop analytical skills and critical thinking through close reading of literary texts 3. To cultivate appreciation of language as an artistic medium and to help them understand the importance of forms, elements and style that shape literary works 4. To enable students to understand that literature is an expression of human values within a historical and social context	1) To write clearly, coherently and effectively about various genres of literature 2) To recognize the culture and context of the work of literature 3) To develop sensitivity to nature and fellow human beings
FYBA UACS101	Communication Skills in English	1) To enhance language proficiency by providing adequate exposure to reading and writing skills 2) To orient the learners towards the functional aspects of language 3) To increase the range of lexical resource through a variety of exercises	1) Students will be able to Understand the process of communication and its effect on giving and receiving information 2) They will learn to apply effective communication skills in a variety of public and interpersonal settings 3) They will be able analyse the technical data such as pie charts , maps, graphs 4) Learners will become well versed with changing communication methods and digitalization of communication system 5) Become aware of the numerous career

			opportunities within the field of communication.
SYBA UAENG-301	Indian Literature in English	1. To introduce learners to the uniqueness of Indian Literature in English 2. To acquaint learners to the pluralistic dimensions of Indian Literature in English 3. To help them understand the different genres of Indian Literature in English 4. To familiarize learners with different perspectives of approaching this literature 5. To make learners aware of prominent Indian Writers in English	1) Broadens the origin of English education during British Empire in India. 2) They will be acquainted with the Dalit/ marginal/ partition and Diasporic Literatures in India 3) They will understand the glory of Indian writings in English 4) It will Inculcate the interest of Indian writing in translations 5) They will be well versed with the prominent Indian writers
SYBA UAENG-302	American Literature	1. To acquaint the learners of literature with the various genres and literary terms of twentieth century American Literature 2. To sensitize them to the themes and styles of American Literature 3. To introduce them to the socio-cultural milieu of twentieth century America through literary texts 4. To enhance their understanding of American, African American and Multicultural sensibilities by introducing them to the literary works representing them 5. To facilitate cross-cultural perspectives and discussions on American Literature	1) Students will be well versed with the various genres of American Literature 2) Learners will be able to understand the significance of American Dream and American life style 3) They will know the brief history of American Literature- Poetry, Drama and Fiction/short story 4) Students will understand culture, language and society through literature 5) Kindles to compare American writings with Indian writings in English 6) Inculcates interests among youth to study abroad, the need of the hour
SYBA UABC:301	Business Communication	1) To develop an awareness about the complexity of communication in a dynamic business environment. 2) To develop effective oral, writing and listening skills among learners. 3) To demonstrate the effective use of communication technology.	1) After of successful completion of the course, the learner should have enhanced Listening, 2) Speaking, Reading and Writing skills and should be prepared 3) To meet the challenges of Communication in the business world

SYBA UAMASS COM - 301	Mass Communication	1) To introduce the students to some major aspects of communication and mass communication. 2) To develop among the students a broad perspective of the past and the present status of Mass Media in India. 3) To develop among the students a critical understanding of the Mass Media with regard to their presentation formats, roles and audiences in Indian context. 4) To develop among the students a critical understanding of some special roles of different Mass Media in India. 5) To help the students to assess the contribution of Indian mass media to national development. 6) To acquaint the students with some issues and laws related to mass media in India. 7) To introduce the students to various job and career opportunities in media industry.	1) By the end of the course the students should be able to receive and analyse various media products critically and become interested in jobs or career in Media Industry.
FYBCOM UABC: 301	Business Communication	1) To develop an awareness about the complexity of communication in a dynamic business environment. 2) To develop effective oral, writing and listening skills among learners. 3) To demonstrate the effective use of communication technology	1) After successful completion of the course, the learner should have enhanced Listening, 2) To develop Speaking, Reading and Writing skills 3) To meet the challenges of Communication in the business world
TYBA UAENG: 501	$16^{th}$to 18^{th}Century English Literature	1. To introduce students to English Literature of the 16^{th}, 17^{th} and 18^{th} centuries. 2. To show them how background influences shaped the writer's thinking. 3. To present them to the	1) To understand the distinctive features of English literature of the 16th, 17thand 18thcenturies 2) To comprehend how background influences shaped the writer's thinking.

		literary masters who dominated the scene 4. To familiarize students with different writing styles that each age adopted.	3) To recognize and appreciate the literary masters who dominated the scene. 4) To grasp the different writing styles that each age adopted.
TYBA UAENG: 502	Literary Criticism	1) To introduce the learners to important critical terms 2) To make them aware of the nature and function of literature and criticism 3) To impart the technique of close reading of literary texts 4) To enable them to understand various literary theories and critical approaches 5) To familiarize the learners with the tenets of practical criticism	1) use some important critical terms 2) become aware the nature and function of literature and criticism 3) impart the technique of close reading of literary texts 4) understand the various literary theories and critical approaches 5) be familiar with the tenets of practical criticism
TYBA UAENG: 503A	Grammar and the Art of Writing	1) To develop amongst learners an insight into the process of word formation and transformation 2) To develop amongst them an insight into the sounds, stress patterns and intonations in the English language to improve their speaking skills 3) To develop among them insight into the structure of the English language and to provide knowledge of the rules of grammar 4) To help them learn grammatical analysis and description and the skills of sentence transformation 5) To introduce the mechanics of writing for effective writing for various domains	1) Gain a basic understanding of phonetics, morphology and word transformation 2) Have improved speaking skills 3) Have developed adequate knowledge of the rules of grammar, grammatical analysis and sentence transformation. 4) Write effectively in various domains.
TYBA UAENG: 504	19thCentury English Literature	1) To introduce to students the major trends and ideas in the literature and culture of the Romantic and Victorian Eras 2) To help students understand the texts in the context of prevailing	1) To view literary works in their dynamic interface with the background 2) To understand the literature of the 19th century as a complex outcome of artistic, intellectual and socio-political cross-currents

		socio-cultural conditions & their historical, political location 3) To impress upon students the characteristically rebellious/ radical nature of British Romanticism and the stupendous range of changes in the socio-political conditions of Early (1837-1851), Middle (1851-1870) and Late (1870-1901) Victorian Era 4) To familiarize and highlight major representative texts, genres, thematic concerns and select key concepts/terms pertaining to the respective periods 5) To help students apply a variety of critical, historical, and theoretical approaches to prescribed literary texts 6) To sensitize students to diverse sensibilities and humanitarian concerns through literature of the nineteenth century	3) To appreciate poetry as mirroring private personality, protest and subsequently, public concerns 4) To view the development of the Victorian Novel as informed by Victorian morality as well as by larger democratic processes 5) To contextualize the impulses behind the significant emergence of women writing in the 19th century
TYBA UAENG: 505	20th Century British Literature	1) To expose students to literary genres, trends, and literary movements of Britain in the 20thCentury. 2) To enable students to create linkages between social and historical contexts and literary texts 3) To train students to develop skills for a critical and analytical understanding of the text.	1) Students will be equipped with comprehensive understanding of literary genres, trends and movements in 20thCentury British Literature; thereby ,enabling them to understand the valuable co –relation between the socio-cultural ,economical and historical contexts; behind the literary production. 2) Students will acquire the discipline to become reflective and imaginative thinkers through a close, critical and analytical reading of the prescribed texts.
TYBA UAENG:	Drama and Theatre	1) To acquaint the learners of literature with various types	1) Analyse the social and artistic movements that have shaped

506B		of drama. 2) To sensitize them to the techniques and types of theatre. 3) To identify and discuss the theoretical and practical elements of drama. 4) To introduce them to drama as a performing art. 5) To enhance their understanding of the elements of theatre. 6) To enable the learners to critically watch a play, write a review and to put up a play.	theatre and drama. 2) Apply discipline-specific skills to the creation of drama. 3) Analyze the difference between the concepts of drama and theatre. 4) Demonstrate knowledge of the history of drama and theatre as a literature and performing art.
MA-I PAENG: 101	Literary Theory and Criticism	1) To introduce the learners to a wide range of critical methods and literary theories 2) To enable them to use the various critical approaches and advanced literary theories 3) To enhance their analytical skills 4) To enable them to mobilize various theoretical parameters in the analysis of literary and cultural texts 5) To familiarize the learners with the trends and cross-disciplinary nature of literary theories 6) To introduce them to the conventions of research papers	1) Introduces to the basics of Literary Criticism 2) Widens the knowledge of literary theories and focuses on their importance 3) Helps to write a critical appreciation 4) Provides an insight of practical criticism 5) Ingrains the mind towards creative writing, appreciation, critical thinking and critical analysis 6) Accentuates expression of thoughts and views for critical appreciation and judgmental reviews 7) Enhances fluency of languages, presentation skills and creative writing
MA-I PAENG: 102	Linguistic and Stylistic Analysis of Texts	1) To understand the concept of style in literature. 2) To understand the linguistic basis of literary criticism (stylistics as an input to literary criticism). 3) To understand the concept of discourse and the principles of discourse analysis. 4) To understand the use of stylistic approach in teaching literature. 5) To understand the impact of stylistic analysis on academic	1) To expose to a range of contexts where the language is used to meet a variety of real life communication needs. 2) To equip with the practical, emotional, intellectual and creative aspects of language by integrating knowledge and skills. 3) To focus on readability, teach-ability and testability - to think beyond the text. 4) To enhance practice in

		writing 6) To understand some major concepts in narratology	objective and subjective writing. 5) To make them aware of British and American Vocabulary
MA-I PAENG: 103	Fiction	1) To familiarize learners with different genres in fiction. 2) To familiarize them with different types of fictional narratives. 3) To provide the learners with an idea of the growth of fiction over the period of the last three centuries. 4) To make the learners aware of the social, cultural and psychological implications of fiction	1) Conceptualize the Genre of Novel and its types viz. Allegorical, Gothic, Historical, Epistolary, Picaresque, and Psychological. 2) Gain knowledge in the development of English Fiction from the 17th Century to the 21st century from man's physical adventures to social and psychological journeys. 3) Learn the elements of fiction Narrative Technique, Setting, Point of view, Style and Detective fiction. 4) Become well acquainted with the literary genre of Novel and Short Story and literary devices of allegory and metaphor, satire, and stream of consciousness technique 5) Enhance Reading skills and understand how to represent their experience and ideas critically, creatively, and persuasively through the medium of language. 6) It will help to Understand the social, historical and political backgrounds of the world of the novelists and short story writers through the elaborate and allegorical descriptions in the prescribed novels. 7) Get a wide exposure of eminent writers like George Orwell, Jane Austen and Daniel Defoe, Thomas Hardy, Jonathan Swift, and Mary Shelly. 8) Their unique styles of writing and imagination help

			to enhance their creative writing skills
MA-I PAENG: 303	Drama	1) To introduce the learners to a wide range of theatrical practices around the world. 2) To introduce the learners to various theories of drama 3) To enable them to understand the elements of drama and theatre 4) To introduce them to the conventions of research papers	1) Interpret literary texts in English by nurturing and utilizing their ability to understand drama in a skilled, knowledgeable, and ethical manner. 2) Conceptualize various types of drama viz. Tragedy, Comedy, Farce, Melodrama, Historical Plays through the prescribed texts and analyze the effect they create in the audience or readers. 3) Gain knowledge in the development of English drama from 16th Century to 21st century viz. Shakespearean drama, Sentimental Comedy, Romantic Comedy, Shavian plays and One-act plays 4) Understand the structure of a play and learn the dramatic devices used in writing a play 5) Become well acquainted with the rhetorical aspect of Drama, historical contexts and psycho-social aspects
MA-II PAENG: 301	Poetry from Chaucer to the Present	1) To familiarize the students with the major representative poets of every age and movements therein. 2) To help them study different genres of poetry in the context of socio- cultural background of the age	1) Will be acquainted poetry from a variety of historic periods 2) understand and appreciate poetry as a literary art form 3) They will be able to analyse various elements of poetry, such as diction, tone, form, genre, imagery, figures of speech, symbolism, theme, etc. 4) They will recognize the rhythms, metrics and other musical aspects of poetry 5) To broaden their vocabularies and to develop an appreciation of language 6) To kindle their critical

			thinking skills 7) To inculcate a deeper appreciation of cultural diversity by introducing them to poetry from a variety of cultures throughout the world 8) To enhance their own creativity 9) To facilitate their writing skills
MA-II PAENG: 302	Gendered Perspectives on Literature	1) To open up avenues in gender studies, including women's studies, by acquainting learners with their complexities and diversity, especially in the constructs of gender and sexuality 2) To encourage learners to interrogate rigid frameworks of gender construction while sensitizing them to the process of socialization and naturalization of gender 3) To enable learners to critically evaluate literary texts from a multivalent gender perspective 4) To explore the thematic and aesthetic concerns in identifying subversive strategies employed by literary writers	1) They will be familiarized with major concepts, history, assumptions, and theories/theorists about gender studies 2) They will be able to recognize the intersections between gender and other social and cultural identities, including, but not limited to, race, ethnicity, national origin, religion, class and sexuality. 3) Engage in promoting social justice and human rights. 4) They will be to articulate how women's studies and gender studies is a distinct field connected to other interdisciplinary fields of study. 5) Identify the interactions and intersections of identities (e.g., gender, race, ethnicity, class, sexuality, and so on) and assess the ways in which they contribute to instances of privilege and power dynamics across cultures, space, and time. 6) They will be able to Evaluate, compare, and critique gender and feminist theories and methodologies.
MA-II PAENG: 303	Twentieth Century American Literature	1) To acquaint the learners of literature with the various genres and literary terms of twentieth century American Literature	1) Instills the background of civil war and Transcendentalism. 2) Emphasizes on the meaning and the significance of

		2) To sensitize them to the themes and styles of modern and postmodern American Literary works 3) To introduce them to the socio-cultural milieu of twentieth century America through literary texts 4) To enhance their understanding of multicultural sensibilities by introducing them to the literary works representing them 5) To facilitate cross-cultural perspectives and discussions on American Literature of multiple ethnicities 6) To enable them to write projects and research papers on American literature	American Dream, then and now 3) Aids to comprehend the effects of racism 4) Extends an opportunity to study a brief history American Literature – Poetry, Drama and Fiction 5) Paves way to know the life, culture language and society through literature 6) Kindles to compare American writings with Indian writings with English 7) Inculcates interests among youth to study abroad, the need of the hour
MA-II PAENG: 304	Shakespeare	1) To familiarize the learner with timeless dimensions of Shakespeare's works. 2) To help the learner understand the contemporary relevance of Shakespeare with reference to modern versions and films based on his plays. 3) To sensitize the learner to development of the genres of comedy, tragedy and history plays in the Elizabethan era. 4) To acquaint the learner with changing responses to Shakespeare's plays	1) Will be acquainted with the intellectual and socio-economic climate of Shakespeare's age 2) They will gain an insight into the contemporary relevance of Shakespeare's work 3) Students will be able to analyze Shakespeare's works critically 4) They will be able to identify the manner in which Shakespeare differed from his fellow dramatists and poets
MA-II PAENG: 305	Indian Writing in Translation	1) To offer an exhaustive study of Indian literatures in the various Indian languages through English translation. 2) To acquaint the students with major movements, trends and tendencies beside major authors and literary texts in multiple languages in India through English translation. 3) To equip the students with	1) Comparative & Translations study broadens the horizon of knowledge 2) Deepens knowledge in English literature for higher studies 3) Kindles creative mind with innovative thoughts 4) Enable them to enjoy life through literature 5) It will help for the growth of literature through translations

		enough knowledge about literary translations in English from Indian languages and help them understand and overcome the problems and issues of literary translation. 4) To familiarize the students with the history of translation in India from the Post-Independence 5) To contemporary times and enable them to writer research papers in the same with new views and perspectives.	
MA-II PAENG: 306	Research Methodology	1) To introduce the learners to the concept of 'research' 2) To acquaint them with the stages of research 3) To familiarize them to the procedures involved in research 4) To introduce them to the conventions of writing research paper 5) To acquaint them with the techniques and conventions of documentation in research	1) They will understand the basic framework of research process and develop understanding on various kinds of research, objectives of doing research, research process, research designs and sampling. 2) It will help students to develop an understanding of various research designs and techniques 3) Learners can be well versed with various sources of information for literature review and data collection. 4) Will help to understand the ethical dimensions of conducting applied research. 5) They will learn to appreciate the components of scholarly writings and evaluate its quality.
MA-II PAENG: 307	Cultural Studies	1) To familiarize the learner with terms, analytical techniques, and interpretive strategies commonly employed in cultural studies 2) To introduce the learner to a wide range of texts from many different critical perspectives	1) Develop an understanding and appreciation of the varying perspectives that one can bring to bear on cultural texts 2) It will help learners to discuss and analyze cultural texts using a wide range of theoretical approaches, in

		3) To familiarize the learners with basic concepts of cultural studies: for instance, power, agency, identity ideology, and representation 4) To enable an understanding of key approaches to the study of culture for better understanding of social and cultural changes 5) To guide the learners to the ways in which understandings and ideas about culture emerge from historical as well as theoretical perspectives 6) To orient the learner with an understanding of how are race, gender, and class produced and consumed in the mass market 7) To equip the learner with an understanding of interdisciplinary approaches in exploring how cultural products are produced, shaped, distributed, consumed and responded to in diverse ways	particular those that consider how class, gender, sexuality, nationality and race are represented in popular texts. 3) Learners will recognize cultural studies is an interdisciplinary enterprise that draws on a wide range of disciplines (e.g., English, philosophy, history, women's studies) 4) Learners will be able to view an individuality, family, education, race, gender, sexuality, class, nationality, age, and religion with cultural context. 5) Students will be able to analyze verbally and in writing Shakespeare as a product of his society. 6) They will be able to compare experiences with themes and issues brought up in Shakespeare's plays, poems, and sonnets. 7) Students will be able to assess reaction to the themes and issues bought up in Shakespeare's plays, poems, and sonnets. 8) They will learn to identify major literary characters in Shakespeare's work.
MA-II	Project Based Courses	1) The objective of the Project Based Courses is to evaluate the critical competence, logical reasoning and scholarly composition of the students at the end of the M.A. Programme. At the end of the course students are expected to have sound theoretical knowledge so that they can apply it to a particular area of study selected from the Project Based Course. They should develop the skills of	1) It will develop the spirit of critical and scholarly enquiry for the subject. 2) Learners will learn how to identify and evaluate appropriate research sources, 3) They will also learn to incorporate the sources into documented academic writing, 4) It will teach them to formulate original arguments in response to those sources. 5) They will learn how to apply appropriate research

		identifying an area of investigation, reviewing literature, analyzing concepts, comparing alternative theories and perspectives, understanding the difference between primary and secondary sources in the area of their research, collecting and organizing data and articulating their arguments coherently and clearly	methodologies to specific problems

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LEARNING OUTCOMES

ARTS FACULTY

FOUNDATION COURSE

1. Name of Department: FC
2. Title of Programme: Foundation Course
3. Programme outcome:
   a. FY/SY/BA/B.Com/B.Sc Students should have a deeper knowledge as compared to the level of Junior College.
   b. They should be more analytical.
   c. They should be more careers oriented.
4. Programme specific outcome:
   a. FC students develop a lateral, social, political, economic understanding of issues.
   b. Students develop a greater knowledge of relevant socio-political, economic, gender issues.
   c. Programme will help the student to appear for the various competitive exams.
   d. Programme makes the students more knowledgeable and job oriented.
   e. Students learn about how to overcome stress, conflicts and frustration as well as utilization of Time through its proper management.
   f. Students learn about Theory of Hierarchy of Needs which is essential for their career planning.
   g. Students learn about Unity in Diversity. So they will be more tolerant towards everyone irrespective of any considerations.
5. Course Outcomes:

Course Code	Title of the Course	Course Credit	Course Outcome
	I. Foundation Course I II. Foundation Course II	3 3 3	1. Students should have overview of Indian society 2. Students should have thorough knowledge of Concept of Disparity with reference to gender, casterism, communalism, linguism and regionalism 3. Students should appreciate the inequalities faced by people with disabilities and understand the issues of people with physical and mental disabilities. 4. Students should have basic knowledge of philosophy of the Indian Constitution along with fundamental duties of the Indian citizens. 5. Students should have basic knowledge of the preparation of projects on basic social issues like drug abuse, AIDS,

			problems of elderly, issues of child labour, child abuse, trafficking of women, increasing urbanisation, changing lifestyles, farmers suicides and agrarian distress, debate regarding genetically modified crops, human rights violations, increasing crime/suicides among youth. 6. Students should have basic knowledge of Globalization under Indian society, origin and evolution of Human Rights, concept of Ecology and Environment. 7. Students should have basic knowledge of understanding stress and conflict, managing stress and conflict in contemporary society 8. Students should have basic knowledge of Concept of Science and applications of Technology like Nanotechnology, Biotechnology, Satellite technology, Cyber Crime and |Information Technology, the knowledge of which is the need of the hour at international level. 9. Students should have basic knowledge of Consumers Rights, Right to Information, PIL, and ESMA.

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LEARNING OUTCOMES

ARTS FACULTY

DEPARTMENT OF GEOGRAPHY

1. Name of Department: GEOGRAPHY
2. Title of Programme: B.A. / ~~B.Sc.~~ / B.Com. / ~~B.M.M.~~ (Strike out which is not required)
3. Programme outcome:
    a. Students will be able to think critically.
    b. Students will be able to communicate and interact with society effectively.
    c. Students will be able to understand the basics of effective citizenship.
    d. Students will learn moral principles and values.
    e. Students will be environmentally conscious and learn the principles of sustainable lifestyle.
    f. Students will learn the mechanism of self-directed and lifelong learning.
4. Programme specific outcome:
    a. Students will be able to comprehend endogenic and exogenic processes and associated landforms.
    b. Students will be able to understand man-environment relationship with reference to settlements, population and migration.
    c. Students will be able to understand basic concepts of meteorology and climatology.
    d. Students will be able to understand characteristics and movements of ocean waters.
    e. Students will be able to learn physical geographical characteristics of India.
    f. Students will be able to learn characteristics of Indian agriculture.
    g. Students will be able to understand characteristics of rural and urban settlements with reference to India.
    h. Students will be able to understand dynamics of population and migration.
    i. Students will be able to learn concept of regional planning and development with reference to India.
    j. Students will be able to understand distribution, characteristics, problems and conservation of natural resources.
    k. Students will be able to understand the functioning of environment and relevant issues with reference to India.
    l. Students will be able to understand fundamentals of tourism geography with reference to Maharashtra.
    m. Students will be able to learn geographical aspects of economic activities.
    n. Students will be able to understand fundamentals of biogeography.
    o. Students will be able to acquire skills in map reading and interpretation.
    p. Students will be able to apply geographical tools and techniques for spatial analysis.
    q. Students will be able to apply skills of geospatial technology.
    r. Students will be able to acquire geographical knowledge through field work.

s. Students will be able to acquire research skills and apply the same.

5. Course outcome (separate for each course):

Course code	Title of the course	Course credit	Course outcome
FYBCom	Environmental Studies – I (Introduced in 2016-2017) http://mu.ac.in/portal/wp-content/uploads/2016/06/F.-Y.-B.Com-Sem-I-II.pdf	03	1. Understand the components of environment and functioning of ecosystem. 2. Understand problems associated with natural resources and their management. 3. Become aware about various issues related to population and development. 4. Comprehend environmental issues in urban areas. 5. Acquire skills of map reading and world map filling.
FYBCom	Environmental Studies – II (Introduced in 2016-2017) http://mu.ac.in/portal/wp-content/uploads/2016/06/F.-Y.-B.Com-Sem-I-II.pdf	03	1. Understand the role of solid waste management for sustainable society. 2. Understand environmental problems associated with agricultural and industrial development. 3. Understand challenges and impacts of tourism. 4. Know environmental movements in India and various aspects of environmental management. 5. Acquire skills of Konkan and Mumbai map filling.
FYBA (Semester – I) UAGEO101	Geomorphology (Introduced in 2016-2017)	04	1. Understand the processes in the interior of the earth. 2. Understand the causes and effects of earthquakes and volcanic eruptions. 3. Understand the formation of landforms by the action of rivers, glaciers, wind, waves and ground water. 4. Calculate gradient (slope) and understand contour patterns and related landforms.
FYBA (Semester – II) UAGEO201	Human Geography (Introduced in 2016-2017)	04	1. Know about branches of human geography and study various views of man-environment relationship. 2. Understand the characteristics and types of rural and urban settlements 3. Understand the distribution of population, causes and effects of migration. 4. Develop skills of drawing graphs and diagrams.
SYBA – II (Semester – III) UAGEO301	An Introduction to Climatology (Introduced in 2017-2018) http://mu.ac.in/portal/wp-content/uploads/2016/06/4.243-S.Y.B.A.-	03	1. Understand the structure and composition of atmosphere. 2. Understand pressure belts and planetary winds, regional winds and local winds. 3. Learn about humidity, condensation and precipitation, cyclones and anticyclones. 4. Understand the causes and effects of Global warming, El Nino and La Nina. 5. Learn to read weather maps and draw climatic

	Geography-Paper-II-Climatology.pdf		diagrams.
SYBA – III (Semester – III) UAGEO302	Physical Geography of India (Introduced in 2017-2018) http://mu.ac.in/portal/wp-content/uploads/2016/06/4.235-S.Y.B.A.-B.Sc_.-Geography-Paper-III-Physical-geography-of-India.pdf	03	1. Understand the physiographic divisions of India. 2. Know about the climate and water resources of India 3. Learn about richness of forest, soil, energy and mineral resources of India. 4. Acquire skills of map filling of physical features of India. 5. Learn to draw map scale.
SYBA – II (Semester – IV) UAGEO402	Introduction to Oceanography (Introduced in 2017-2018) http://mu.ac.in/portal/wp-content/uploads/2016/06/4.244-S.Y.B.A.-Geography-Paper-II-Oceanography.pdf	03	1. Know the features of major oceans. 2. Understand ocean floor relief and physical and chemical properties of sea water. 3. Know about the ocean water movements i.e. waves, currents and tides. 4. Understand the problems of oceans w.r.t. coral reefs, pollution and climate change. 5. Acquire skills of world map filling w.r.t. ocean features and reading bathymetric maps and hydrographic charts.
SYBA – III (Semester – IV) UAGEO401	Agriculture Geography of India (Introduced in 2017-2018) http://mu.ac.in/portal/wp-content/uploads/2016/06/4.245-S.Y.B.A.-Geography-Paper-III-Agriculture-Geography-of-India.pdf	03	1. Understand the factors affecting Indian agriculture. 2. Know the agro-climatic regions, types of farming and major crops in India, and problems associated with Indian agriculture. 3. Understand the significance of Green Revolution in India. 4. Know the recent trends in agriculture. 5. Learn to read agriculture related thematic maps and draw graphs.
TYBA – IV (Semester – V) 97022 / UAGEO501	Geography of Settlements (Introduced in 2018-2019) http://mu.ac.in/portal/wp-content/uploads/2016/06/4.28-T.Y.-	04	1. Understand types of settlements and factors affecting their growth and distribution. 2. Learn types of rural settlements. 3. Know about rural settlements in India. 4. Know the origin, growth, types and hierarchy of urban settlements. 4. Understand urbanisation in India and need of smart cities.

	B.A-B.Sc_.-Geography-2-5-18-2.pdf		
TYBA – V-A (Semester – V) 97054 / UAGEO502-A	Geography of Maharashtra (Introduced in 2018-2019) http://mu.ac.in/portal/wp-content/uploads/2016/06/4.28-T.Y.-B.A-B.Sc_.-Geography-2-5-18-2.pdf	04	1. Understand the geographical setting of Maharashtra. 2. Know about the resource base of Maharashtra. 3. Understand population dynamics in Maharashtra. 4. Learn about various economic activities in Maharashtra
TYBA – V-B (Semester – V) 97055 / UAGEO502-B	Population Geography (Introduced in 2018-2019) http://mu.ac.in/portal/wp-content/uploads/2016/06/4.28-T.Y.-B.A-B.Sc_.-Geography-2-5-18-2.pdf	04	1. Know about various sources of population data. 2. Understand the distribution, growth and structure of population. 3. Critically study various theories related to population. 4. Understand types, causes and consequences of migration; and migration in India. 5. Understand problems related to population such as ageing, gender issues, poverty, unemployment and rapid urbanization.
TYBA – VI (Semester – V) UAGEO503	Tools and Techniques in Geography for Spatial Analysis – I (Practicals) (Introduced in 2018-2019) http://mu.ac.in/portal/wp-content/uploads/2016/06/4.28-T.Y.-B.A-B.Sc_.-Geography-2-5-18-2.pdf	03	1. Understand the science of map making, map basics and map projections. 2. Develop skill in topographical map reading w.r.t. SOI toposheets of India. 3. Learn to draw thematic maps. 4. Learn to use statistical softwares to represent geographical data.
TYBA – VII (Semester – V) 97125 / UAGEO504	Regional Planning and Development (Introduced in 2018-2019) http://mu.ac.in/portal/wp-content/uploads/2016/06/4.28-T.Y.-B.A-B.Sc_.-Geography-2-5-18-2.pdf	04	1. Understand the concept of regional planning and its relation with geography. 2. Understand the concept of region in planning. 3. Understand regional development and disparities. 4. Know about five year plans, multi-level planning, planning regions and planning mechanism of India. Study regional planning in India w.r.t. various programmes.

TYBA – VIII-A (Semester – V) 97155 / UAGEO505-A	Geography of Resources (Introduced in 2018-2019) http://mu.ac.in/portal/wp-content/uploads/2016/06/4.28-T.Y.-B.A-B.Sc_.-Geography-2-5-18-2.pdf	04	1. Know types of resources and issues related with renewable and non-renewable resources. 2. Understand over exploitation and conservation of resources. 3. Understand the problems and conservation of water, forest, soil, mineral and energy resources. 4. Know about human resources and the distribution of population and population-resource regions.
TYBA – VIII-B (Semester – V) 97156 / UAGEO505-B	Geography of Health (Introduced in 2018-2019) http://mu.ac.in/portal/wp-content/uploads/2016/06/4.28-T.Y.-B.A-B.Sc_.-Geography-2-5-18-2.pdf	04	1. Understand Significance of geography of health. 2. Know causes, effects and remedial measures of air, water, plastic and radioactive pollution. 3. Understand geography of diseases. 4. Understand linkage of health with environment. 5. Know health care facilities in India.
TYBA – VIII-C (Semester – V) 97157 / UAGEO505-C	Geography of Disaster Mitigation and Management (Introduced in 2018-2019) http://mu.ac.in/portal/wp-content/uploads/2016/06/4.28-T.Y.-B.A-B.Sc_.-Geography-2-5-18-2.pdf	04	1. Understand concepts of Disaster, Hazard, Vulnerability and Risks; types of hazards and disasters and their impacts. 2. Know elements of disaster management. 3. Understand methods and approaches of disaster management. 4. Understand causes, effects and managements of natural disasters in India. 5. Understand causes, effects and managements of anthropogenic disasters in India.
TYBA – IX (Semester – V) 97189/ UAGEO506	Geospatial Technology (Practicals) (Introduced in 2018-2019) http://mu.ac.in/portal/wp-content/uploads/2016/06/4.28-T.Y.-B.A-B.Sc_.-Geography-2-5-18-2.pdf	03	1. Mapping of Thematic Layers and Visual Image Interpretation of Physical and Manmade Features from Satellite Imageries. 2. Digital Image Analysis – classification of landforms and 3D viewing using DEM (Digital Elevation Model). 3. Visual Image Interpretation of Physical and Manmade Features from Aerial Photographs. 4. Ground Survey and Demarcation of Point, Line and Polygon Features with GPS Device and Transfer GPS Data to Computer with Softwares like Easy GPS. 5. Importing Image into GIS Software and Geo-referencing and creating Layers by Digitization of

			Point, Line and Polygon Features 6. Using Map-Composer for map layout and design and preparation of thematic maps.
TYBA – IV (Semester – VI) 86509 / UAGEO601	Environmental Geography (Introduced in 2018-2019) http://mu.ac.in/portal/wp-content/uploads/2016/06/4.28-T.Y.-B.A-B.Sc_.-Geography-2-5-18-2.pdf	04	1. Know the components of environment and understand man-environment relationship. 2. Understand the types, structure and functioning of ecosystem. 3. Know about biodiversity hotspots, threats to biodiversity and conservation of biodiversity. 4. Study environmental challenges and movements in India. 5. Learn about sustainable development, environmental management and environmental impact assessment.
TYBA – V-A (Semester – VI) 86539 / UAGEO602-A	Geography of Tourism and Recreation (Introduced in 2018-2019) http://mu.ac.in/portal/wp-content/uploads/2016/06/4.28-T.Y.-B.A-B.Sc_.-Geography-2-5-18-2.pdf	04	1. Study factors affecting tourism development. 2. Know about types and impacts of tourism. 3. Know types of accommodation and transport in tourism. 4. Understand the need of planning in tourism and role of tourism organizations. 5. Identify potential tourism sectors in Maharashtra.
TYBA – V-B (Semester – VI) 86540 / UAGEO602-B	Political Geography (Introduced in 2018-2019) http://mu.ac.in/portal/wp-content/uploads/2016/06/4.28-T.Y.-B.A-B.Sc_.-Geography-2-5-18-2.pdf	04	1. Understand basic concepts in political geography. 2. Know various approaches in political geography. 3. Understand concepts and disputes related to boundaries w.r.t. India. 4. Know geostrategic and geopolitical views. 5. Know basic concepts in electoral geography.
TYBA – VI (Semester – VI) UAGEO603	Tools and Techniques in Geography for Spatial Analysis – II (Practicals) (Introduced in 2018-2019) http://mu.ac.in/portal/wp-content/uploads/2016/06/4.28-T.Y.-B.A-B.Sc_.-Geography-2-5-	03	1. Calculate measures of central tendency and to know the nature of data 2. Calculate measures of dispersion and deviation 3. Calculate correlation and regression 4. Learn the techniques of hypothesis testing 5. Learn various methods of geographic sampling 6.Learn collection of geographical data with fieldwork

	18-2.pdf		
TYBA – VII (Semester – VI) 86609 / UAGEO604	Economic Geography (Introduced in 2018-2019) http://mu.ac.in/portal/wp-content/uploads/2016/06/4.28-T.Y.-B.A-B.Sc_.-Geography-2-5-18-2.pdf	04	1. Learn basic concepts in economic geography with reference to economy and resources 2. Understand characteristics and geographical factors affecting economic activities 3. Learn the factors affecting industrial location 4. Learn major patters of transport routes and international trade 5. Know concepts and issues related to economic development in India
TYBA – VIII-A (Semester – VI) 86642 / UAGEO605-A	Biogeography (Introduced in 2018-2019) http://mu.ac.in/portal/wp-content/uploads/2016/06/4.28-T.Y.-B.A-B.Sc_.-Geography-2-5-18-2.pdf	04	1. Learn basic concepts, approaches and importance of biogeographical studies 2. Understand concepts and components of ecosystem and biosphere 3. Learn concept, classification and formation of plant communities 4. Study specific marine biogeographical areas like ocean, islands and estuaries 5. Learn concepts and issues related to biodiversity and its conservation
TYBA – VIII-B (Semester – VI) 86643 / UAGEO605-B	Geography of Transport (Introduced in 2018-2019) http://mu.ac.in/portal/wp-content/uploads/2016/06/4.28-T.Y.-B.A-B.Sc_.-Geography-2-5-18-2.pdf	04	1. Learn basic concepts like distance related to transport geography 2. Understand structure and properties of transport network 3. Study the evolution of modes of transport w.r.t. locational factors 4. Learn theories related to connectivity and accessibility 5. Explore various issues related to transport in India
TYBA – VIII-C (Semester – VI) 86644 / UAGEO605-C	Social Geography (Introduced in 2018-2019) http://mu.ac.in/portal/wp-content/uploads/2016/06/4.28-T.Y.-B.A-B.Sc_.-Geography-2-5-18-2.pdf	04	1. Study basic concepts and processes related to social geography 2. Learn elements of social geography w.r.t. race, religion, language and tribes with reference to world and India 3. Understand social geography of urban areas 4. Study contemporary social issues in India
TYBA – IX (Semester – VI) UAGEO606	Research Methodology in Geography (Practicals) (Introduced in 2018-2019) http://mu.ac.in/por	03	1. Know significance and types of research methodology. 2. Learn methods of data collection and processing. 3. Analyse data using statistical softwares and hypothesis testing techniques. 4. Analyse digital data in GIS softwares. 5. Acquire practical knowledge of research

	tal/wp-content/uploads/2016/06/4.19-Final-Sem-VI-paper-VI-and-IXResearch-methodology-in-Geography.pdf		methodology by doing research project.

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LEARNING OUTCOMES

ARTS FACULTY

DEPARTMENT OF HISTORY

1. Name of Department: History and Travel and Tourism
2. Title of Programme: B.A. and Travel and Tourism Add On Course (Dual Degree Course)
3. Programme outcome:
    a. B.A students should have a deeper knowledge as compared to the level of 12th standard.
    b. They should be more analytical as compared to the level of 12th standard.
    c. They should be more careers oriented as compared to the level of 12th standard
    d. They should be motivated to pursue basic courses under computer that is dire need of the day.
4. Programme specific outcome:
    a. B.A History students develop a logical understanding because they have to study causes and effects of events.
    b. B.A History student develop a greater knowledge of Indian History and World History.
    c. BA History programme will help the student to appear for the various competitive exams.
    d. B.A History programme makes the students more employable.
5. Course Outcomes:

Course Code	Title of the Course	Course Credit	Course Outcome
	III. History of Modern India (1857 to 1947) IV. Landmarks in World History (1300 to 1945 AD) V. History of Ancient India. VI. History of Delhi Sultanate VII. Modern Maharashtra (1818 CE to 1960 CE) VIII. Introduction to Archaeology IX. History of the Marathas X. History of the Contemporary World	3 3 3	10. Students should have basic knowledge of Indian history 11. Students should have thorough knowledge of World history with reference to renaissance, geographical discoveries, reformation, nationalism, imperialism dictatorships, World Wars, and how to establish organisation to maintain world peace. 12. Students should have thorough knowledge of Ancient Indian history from sources of history, Indus Valley Civilization Vedic Age, Janapadas, Mahajanapadas, Jainism, Buddhism, Persian, Greek Invasion, Mauryan dynasty,

	XI. Research Methodology		Ashoka, Guptas, Harshavadhan, Arab invasion of Sindh i.e. arrival of Islamic rule and Indian rulers. 13. Students should have basic knowledge of the arrival of the Muslim rulers during Medieval Indian history from Slave dynasty to Mughals with reference to Vijaynagar empire and the role of Bhakti movement, Sufism, Sikhism, Din e Ilahi, social, economic and administrative conditions of the society. 14. Students should have basic knowledge of history of Maharashtra with reference to important role of social reformers of Maharashtra. 15. Students should have basic knowledge of the importance of archives and archaeology to understand history in the best way. 16. Students should have basic knowledge of important role of Marathas with reference to legacy of Chatrapati Shivaji Maharaj and Peshwas. 17. Students should have basic knowledge of World history and how the world powers established Organisation to stop further wars for the welfare of the people at international level. 18. Students should have basic knowledge of Research Methodology. Under that, they should learn how to do research with the help of various sources and how to write.

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LEARNING OUTCOMES

ARTS FACULTY

DEPARTMENT OF MARATHI

1. Name of Department: Marathi
2. Title of Programme: B.A./MA
3. Programme outcome:
   1) We have Occupational Marathi Subject for FYBA, which was helpful for the students in competitive exams and administration.
   2) We have study of linguistic science subject for SYBA, TYBA & PG that was helpful for language studies and research in language field.
   3) We have subject Translation and Interview Techniques, which was helpful for students for translation jobs and Studies and stage, interview Programs.
   4) In PG (MA II) Course we have subjects script writing & film Adaptation which gave Knowledge to the students about writing and film Studies.
4. Programme specific outcome: RESULTS
   1) Student take participate in various competition related to the research
   2) Many students start translation studies and translation work for Magazine & books.
   3) Students started working for serial script writing and research team.
5. Course outcome (separate for each course):

Course code	Title of the course	Course credit	Course outcome
1.UAMAR-A-506/606	व्यवसायाभिमुख मराठी	3	1) Occupational Marathi Subject for TYBA, which was helpful for the students in competitive exams, administration & Communication Skills
2. UAMAR-A-504/604	भाषाविज्ञान आणि मराठी व्याकरण भारतीय आणि पाश्चात्य साहित्यशास्त्र	4	2) Linguistic and Grammar Subject for TYBA, which was helpful for the students in competitive exams, State gov. Administration and School level Teaching
3. . UAMAR-A-502/602	सौंदर्यशास्त्र १/२	4	3)Indian & western Poetics Subject for TYBA, which was helpful for the students in Philosophical Approach and research 4) Aesthetics studies which

MA 1413/1419 MA 1438/1411 MA SEM 4 1419	चित्रपट पटकथांचा अभ्यास माध्यामंतराचा अभ्यास संशोधन प्रकल्प	6 6 6 10	was helpful for the students in Philosophical Approach , research and film Studies 5) In PG (MA II) Course we have subjects script writing & film Adaptation which gave Knowledge to the students about writing and film Studies. 6) Miner Research project which help student for research approach and PHD research studies

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LEARNING OUTCOMES

ARTS FACULTY

DEPARTMENT OF POLITICAL SCIENCE

1. Name of Department: Political Science
2. Title of Programme: B.A.
3. Programme outcome:

Community Engagement and Global Understanding

Understand how cultural, historical, geographical, political, linguistic, and environmental forces shape the world and recognize the role of the individual within communities to effect change.

This includes the ability to:

- Reflect on one's cultural identities and values
- Demonstrate intercultural awareness and competence
- Recognize and appreciate the real-world context of knowledge
- Promote active citizenship and community engagement

Critical and Creative Thinking

Analyse and critically reflect on complex problems incorporating multiple perspectives and innovative thinking.

This includes the ability to:

- Analyse, synthesize and integrate knowledge
- Critically evaluate the validity of arguments and conclusions
- Practice creative thinking and expression
- Demonstrate the capacity to argue in innovative directions

Literacy and Communication

Demonstrate the ability to extract and convey information accurately in a variety of formats.

This includes the ability to:

Identify, locate, comprehend, and critically evaluate quantitative and qualitative information using visual, numerical, oral, aural, and textual sources

Communicate concepts and information clearly and in various formats (oral, visual, written, etc.)

Engage effectively with audiences from different backgrounds

Evaluate and Conduct Research

Engage in scholarly inquiry to identify and investigate questions of a theoretical and/or applied nature.

This includes the ability to:

- Identify gaps and limitations in the existing literature
- Understand the principles of the research process
- Apply appropriate research methodologies to specific problems
- Develop intellectual independence and practice self-directed inquiry

Depth and Breadth of Understanding

Demonstrate detailed knowledge in one or more disciplines and integrate knowledge and perspectives across disciplinary boundaries.
This includes the ability to:

- Develop a detailed understanding of the current state of knowledge in one or more disciplines
- Recognize the value, use and limits of multi-disciplinary learning
- Cultivate an openness to consider and engage alternative research perspectives

Professional Development and Ethical Behaviour
Demonstrate personal integrity and professional behaviour in scholarly endeavours and in collaborating with others within and beyond the academic community.
This includes the ability to:

- Demonstrate intellectual integrity and academic accountability
- Collaborate respectfully with others, individually and in teams
- Show leadership in professional environments while recognizing diversity
- Manage time effectively and ensure personal organization

4. Programme specific outcome: BA IN POLITICAL SCINECE
    g. To introduce the learner to the Constitution of India and Political Process in India.
    h. To help to build the theoretical foundation of learners in the subject of political science.
    i. To improve the understanding of learners about relationship between citizen and state.
    j. To familiarize the learners with theory and practice of International Relations with special emphasis on foreign policy of India.
    k. To introduce the learners to political ideas from Western and Indian tradition.
5. Course outcome (separate for each course):

Course Code	Title of the course	Course credit	Course outcome
	FYBA	8 (4 per semester)	1) To help the learners to acquaint with the theory and practice of constitutionalism in India. 2) To help the learners to develop constitutional perspective to understand political system of India. 3) To introduce the learners with the history of the making of Indian Constitution. 4) To orient the learners about rights and duties of citizens under the constitution. 5) To familiarize and acquaint with the functioning of executive, legislature and judiciary; and their mutual relationship. 6) To help the learners to understand the changing nature of federal system in India. 7) To understand the party politics and electoral process in India. 8) So explore social dynamics involving caste, religion and gender behind functioning of Political system in India. 9) To understand and analyze the challenges to national security in India with reference to criminalization, Naxalism and global terrorism.

	SYBA-PAPER-II	6 (3 Per Semester)	1) To introduce the learners to traditional and contemporary approaches to political theory. 2) To familiarize the learners with theory of State, Nation, Civil Society, Market. 3) Understand the basic concepts of Power, Authority, Legitimacy, Law, Political Obligation and Right to Resist. 4) Understand the discourse on rights in political science. 5) To introduce to political values of liberty, equality and justice. 6) To develop the theory and practice of democracy. 7) Acquaint the students with the contemporary debates across the ideologies of Marxism, Fascism and Feminism.
	SYBA-PAPER-III	6 (3 Per Semester)	1) To introduce the learner to the discipline of public administration. 2) To acquaint with theories of administration. 3) To study basic principles of organization. 4) Students acquaint with concept of governance and its increasing significance in the era of Globalization 5) To introduce the learner to evolution of Indian administration since British rule. 1) To understand the recruitment system of Indian Administration. 2) To understand the financial administration of India. 3) To understand issues of integrity, corruption and citizen participation in Indian administration.
	TYBA-PAPER –IV	8 (4 Per Semester)	1) Students help to identify and conceptualize the Major issues in the International Relations 2) Students help to identify the major national/international actors engaged in dealing with these issues at various levels in international Politics 3) Understand to the Nature and emerging trends of India's Foreign Policy. 4) Students acquaint with the domestic and international security concerns 5) Understand of the relations of India with neighboring countries and major powers in the world
	TYBA-PAPER –V	8 (4 Per Semester)	1) To understand the major western philosophical traditions in study of politics. 2) To study the contribution of Machiavelli, John Locke, J.S. Mill, John Rawls, Karl Marx, Antonio Gramsci, Simon-de-Beauvoir and Will Kymlicka 3) Understand the Political Ideas, views and concerns of leading Indian thinkers. 4) To familiarize with richness of political ideas within discourses on nationalism, democracy and social transformations in pre and post-independence India, their need for modern society.

	TYBA- PAPER –VI	6 (3 Per Semester)	1) Student familiarize with the historical basic information, analytical framework the formation of Maharashtra State 2) Students understand the changes and the new trends in Maharashtra Politics 3) Understand important issues in Current Maharashtra Politics.
	TYBA- PAPER –VII	8 (4 Per Semester)	1) To make students aware of interaction and connectedness between society and political system. 2) To understand the analytical categories of caste, class, gender; and theoretical concepts of power, legitimacy and hegemony. 3) To understand the theories of political culture, political socialization and political participation
	TYBA- PAPER VIII	8 (4 Per Semester)	1) To make students aware about American Political System 2) To make them understand systemic comparison of two constitutional systems 3) To understand influence of Non-State actors on the political system
	TYBA- PAPER –IX	6 (3 Per Semester)	To understand 1) electoral system in the Parliament setup 2) importance of free and fair election 3) Operational challenges of electoral system 4) Importance of electoral reforms

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LEARNING OUTCOMES

ARTS FACULTY

DEPARTMENT OF PSYCHOLOGY

1. Name of Department: Psychology
2. Title of Programme: B.A.
3. Programme outcome:
    l. Students can go for a career option in various areas following successful accomplishment of their Bachelor of Arts degree. Employment opportunities include Historian, Economist, Educationist, Archaeologist, Political Scientist, Philosopher, Social Activist, Personnel Manager, Psychologist, Sociologist, Philosopher, Public Relation Executive, Lawyer, Journalist and so on.
    m. The BA Program help to develop social, economical, historical, geographical, political, literary, empathic thinking in students
    n. The program also trains and prepares the graduates to appear for various competitive examinations
    o. It provides wider scope of pursuing their further studies in the programme of their choice
    p. The knowledge in the field of social sciences, literature and humanities equips them with better communication and interpersonal skills

4. Programme specific outcome:
    q. BA Psychology provides immense career options to the students such as consultant psychologist in hospitals, career counsellors, counselling psychologists, Human Resource professionals, Teaching, NGO set up professionals etc.
    a. Graduation in psychology helps to develop a student's concept knowledge, Psychology as a field and its scope and psychological testing which provides a strong foundation to pursue psychology at PG level and in many other professional courses in psychology like diplomas courses, social work
    b. Students graduating with a degree in Psychology will know the intricacies of human thought and behaviour thereby making them sensitive, empathic and better humans
    c. Students with a degree in Psychology will be able to interpret, design and conduct basic psychological research
    d. Students graduating with a degree in Psychology will know and apply ethical standards in scientific research

5. Course outcome (separate for each course):

Course Code	Title of the course	Course credit	Course outcome
UAPSY 101	Fundamentals of Psychology Part I	03	• To impart knowledge u of the basic concepts and modern trends in Psychology • To foster interest in subject of Psychology and create a foundation
UAPSY 201	Fundamentals of Psychology Part I	03	

			for further studies in Psychology • To make the students aware of the applications of Psychological concepts in different areas of day to day life.
UAPSY 301	Social Psychology Part I	03	• To help students in building knowledge of the basic concepts and modern trends in Social Psychology • 2.ToFoster interest in Social Psychology as a field study and research among students • To make the students aware of the applications of the various concepts in Social Psychology in Social Psychology in the Indian Context.
UAPSY 401	Social Psychology Part II	03	
UAPSY 302	Developmental Psychology A Focus on Adolescent and Adult Development : Part I	03	• To help students in building knowledge and understanding of the basic concepts, principles, perspectives modern trends in Developmental Psychology • To foster interest in Developmental Psychology as a field of study and research among students. • To make students aware of the implications and applications of the various implications and applications of the various concepts, principles theories of Developmental Psychology in daily life in the Indian context.
UAPSY 402	Developmental Psychology A Focus on Adolescent and Adult Development : Part II	03	
UAHP3A1	Applied Component Psychology Psychology: Part I	02	• To help students in building knowledge and understanding of the basic concepts and modern trends in Health Psychology • To foster interest in Health Psychology as a field of study and research among students. • To make students aware of the practicalapplications of the various conceptsin Health Psychology in daily life in the Indian context
UAHP4A1	Health Psychology Psychology: Part II	02	
UAPS501 UPAS601	Psychological Testing and Statistics	08	• Knowledge about various tests and understanding the process of psychological test construction • Understanding of basic concepts in statistics
UAPS502 UAPS603	Abnormal Psychology	08	• Understanding of varied concepts in Abnormal psychology and the

			theories of abnormality • Basic Knowledge of different psychological disorders
UAPS503 UAPS603	Industrial-Organizational Psychology	07	• Understanding of different facets in Industrial psychology • Awareness about the role and importance of psychological factors at work
UAPS504 UAPS604	Cognitive Psychology	08	• Knowledge and understanding of fundamental concepts in cognitive psychology • Applications of cognitive psychology in everyday life and other fields • Provide theoretical foundation and background for the courses in Practicals in cognitive processes • Create foundation for higher education and a career in the field of cognitive psychology
UAPS505 UAPS605	Practicals in Cognitive Processes and Psychological Testing	08	• Equipped with process of experimentation including basic statistical analysis and interpretation of data • Experience with computer based experiments • Develops student's ability for scientific enquiry and analytical attitude
UAPS506 UAPS606	Counselling Psychology	07	• Understanding of major theories in Counselling Psychology • Develop basic skills in Counselling

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LEARNING OUTCOMES

ARTS FACULTY

DEPARTMENT OF SINDHI

COURSE CODE	TITLE OF THE COURSE	OBJECTIVE	OUTCOME
FYBA UBA 1.48	SINDHI (COMPLUSORY)	1. To acquaint students with the characteristics of various literary genres 2. To develop analytical silks and critical thinking through close reading of literary texts 3. To cultivate appreciation of language as an artistic medium and to help them understand the importance of forms, elements and style that shape literary works.	1) To write clearly coherently and effectively about various genres of Sindhi literature. 2) To recognize the culture and context of the work of literature in Sindhi
FYBA UBA1.9	SINDHI (ANCILLARY)	1. To enhance language proficiency by providing adequate exposure to reading and writing skills 2. To orient the learners towards the functional aspects of language.	1) Students will be able to understand the process of communication and its effect on giving and receiving information.
SYBA UASI301	Classical Poetry & Modern Poetry	1. To familiarize the students with the major representative poets of every age and movements therein 2. To help them study different genres of poetry in the context of socio-cultural background of the age	1) Will be acquainted poetry with a variety of historic periods 2) They will recognize the rhymes, metric s and other musical aspects of poetry
SYBA UASI402	Language and its Description & Functions of Language.	1. To understand the concept of style in literature and language 2. To understand the concept of discourse and the principles of discourse analysis 3. To understand the impact of stylistics analysis.	1) To expose to range of contexts where the language is used to meet a variety of real life. 2) To focus on readability teach-ability and testability to think beyond the text.
TYBA 97008	Origin and Development of	1. To introduce the learners to wide range of critical	1) To become an effective Sindhi Literature Teacher

	Sindhi Language and Grammar	methods and literary theories. 2. To familiarize the students with major representative poets of every age and movements therein. 3. To help them study different genres of poetry in the context of socio- cultural background of the age. 4. To introduces students to Sindhi Literature since beginning upto 1947 5. To introduce the learners to important critical terms. 6. To train students to develop skills for a critical and analytical understanding of the text	2) To help Sindhi Literature students to develop Sindhi Communication Skills. 3) To help students to get the Jobs in Sindhi Linguistic Minority Institute. 4) To Understand the Concept of Business by learning Sindhi Literature at the International & National market as many of businessman are sindhi.
97038	History of Sindhi Literature from the Beginning upto 1947		
97073	Applied Nature related to core papers		
97108	Principles of Poetry 1798 A.D On Wards And Poet		
97140	Principles of Literary Criticism		
97173	Applied Nature)Classical and Modern Poetry		
TYBCOM 23138	Literature in Sindhi	1. To acquaint students with the characteristics of various literary genres 2. To develop analytical silks and critical thinking through close reading of literary texts 3. To cultivate appreciation of language as an artistic medium and to help them understand the importance of forms, elements and style that shape literary works.	1. To write clearly coherently and effectively about various genres of Sindhi literature. 2. To recognize the culture and context of the work of literature in Sindhi

Smt. Chandibai Himathmal Mansukhani College, Ulhasnagar – 3

LEARNING OUTCOMES

ARTS FACULTY

DEPARTMENT OF SOCIOLOGY

FYBA- PAPER- I (FOUNDATIONS OF SOCIOLOGY)

- To introduce students to the basic concepts in Sociology
- To familiarize students with the theoretical aspects of different concepts.

SYBA- Paper- II (Sociology of India)

- To bring awareness and sensitivity among the students towards contemporary issues.
- To inculcate responsibilities and promote equality.

SYBA- Paper- III (Sociology of Development)

- To introduce students to the relevance and varied possibilities for future studies in sociology.
- It make's students aware about the new vibrant fields in sociology.
- To provide students with an in-depth understanding of struggle and survival in today's competitive scenario.

TYBA-Paper IV (Sociological Theory)

- To provide the students of Sociology with the understanding of Sociological Theory.
- To train students in the application of these theories to social situations.

TYBA-Paper V (Sociology of work)

- To introduce students to the area of industrial sociology
- To familiarise students to the nature of Indian work and workers
- To develop sociological understanding of the changes taking place in the area of work

Paper-VI (Sociology of Gender)

- To trace the evolution of Gender as a category of social analysis.
- To trace the emergence of women's movement in India
- To sensitise the students on gender issues

Paper-VII (Sociology of Human Resource Development)

- To familiarize the students with role and functions of human resource development at the micro and macro level.
- To create an awareness of the various issues involved in the development of human resources with particular emphasis on social and cultural factors.

Paper-VIII (URBAN SOCIOLOGY)

- To introduce students to the basic concepts, theories, nature & dynamics of urbanization in India
- To understand the trends of India's contemporary urbanization pattern

Paper-IX (Quantitative Social Research)

- To provide students with an orientation to Quantitative Social Research
- To acquaint students with the important concepts, techniques and processes in quantitative research
- To guide students to work on meaningful, minor research projects

Smt. Chandibai Himathmal Mansukhani College, Ulhasnagar – 3

LEARNING OUTCOMES

COMMERCE FACULTY

DEPARTMENT OF ACCOUNTANCY

1. Name of Department: ACCOUNTANY
2. Title of Programme: B.Com.
3. Programme outcome:
    - To prepare students for advanced academic studies as well as for careers in public accounting, private industry, government and non- profit sectors.
4. Programme specific outcome:
    - To Enable learners to recognize commonly used financial statements, their components and how information from business transactions flows into these statements.
5. Course outcome (separate for each course):

Course Code	Title of the course	Course credit	Course outcome
First Year (Semester – I & II)			
UBCOMFSI.1 UBCOMFSII.1	Accountancy and Financial Management – I Accountancy and Financial Management - II	03 03	Be proficient in the financial accounting systems with specialized practical knowledge on preparing annual financial statement of a Manufacturing Organization ,understanding of assets, liabilities, capital and revenue expenditure & Hire purchase system,
Second Year (Semester – III)			
UBMSFSIII.1	Accountancy and Financial Management III	03	Be Proficient in Financial Accounting system of partnership firms also understand the concept of Conversion of Partnership firm into a Company
UBCOMFSIII.2.1	Financial Accounting and Auditing - Introduction to Management Accounting	03	Ability to analyze the financial statements of an enterprise using vertical approach and various techniques like Comparative statements, common size, trend analysis, ratios, and other management accounting techniques of working capital management, cash flow statement and Receivables management.
Second Year (Semester – IV)			
UBMSFSIV.1	Accountancy and Financial Management IV	03	Understanding Concept of redemption of Preference shares and Debentures and to understating calculation of claim in case of fire insurance.
UBCOMFSIV.2.1	Financial Accounting and Auditing -	03	Ability to understand basic concept of Auditing and SAP of Auditing. Understanding of various techniques of auditing .

	Auditing		
Third Year (Semester – V)			
23101	Financial Accounting and Auditing VII - Financial Accounting	04	This course aims to enlighten the students on the accounting procedures followed by the Companies. To enable the students to be aware on the Corporate Accounting in conformity with the provision of the Companies Act.
23107	Financial Accounting and Auditing VIII - Cost Accounting	04	Ability to understand basic concept of cost , various elements of cost and preparation of cost sheet.
23115	Direct & Indirect Taxation Paper I	03	Ability to calculate taxable income of an individual and file the income tax returns independently.
Third Year (Semester – VI)			
83001	Financial Accounting and Auditing IX - Financial Accounting	04	Understanding Concept of Amalgamation , absorption and liquidation in case of companies also understanding of accounting in case of Foreign transaction in convergence with Accounting Standards issued by ICAI.
83007	Financial Accounting and Auditing X - Cost Accounting	04	Ability to understand various techniques of costing like marginal costing, process costing , standard costing and Contract costing.
83015	Direct and Indirect Taxation Paper II	03	Ability to calculate various types of GST and learn to calculate GST of business organization..

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LEARNING OUTCOMES

COMMERCE FACULTY

BUSINESS LAW

1. Name of Department : Commerce
2. Name of Course : S.Y.B.Com. (Business Law)
3. Title of Program : B.Com.
4. Program Outcome : NIL
5. Program Specific Outcome : NIL
6. Course outcome : As under:

Course Code	Title of the Course	Course Credit	Course outcome
A) SYBCom. III	Business Law	03 per/sem.	➢ To impart the basic knowledge of different types of contract. ➢ To learn the different Negotiable Instruments for transfer of value in terms of money. ➢ To know the sale transaction of moveable property.
B) SYBCom. IV	Business Law	03 per/sem.	➢ To impart knowledge of different types of business like company, partnership and Limited Liability Partnership. ➢ To help students to know the various rights of a consumer and redressal of consumer before District Forum, State Commission and National Commission.

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LEARNING OUTCOMES

COMMERCE FACULTY

DEPARTMENT OF COMMERCE AND BUSINESS MANAGEMENT

1. Name of Department: COMMERCE & BUSINESS MANAGEMENT
2. Title of Programme: B.Com
3. Programme outcome:
   The curriculum has been enriched with the latest trends in all the related fields of Commerce. It enables the students to grab in- depth knowledge of varied subjects like Accountancy, Commerce, Law, Economics, and so on. The subjects give an understanding and clarity of the current aspects and changes taking place in the business environment which makes students fairly ready for the global competitive world
4. Programme specific outcome:
   The curriculum includes subjects like Foundation Course that enable the students to develop an understanding about the Constitution of India & Human Rights, Various contemporary and social issues that helps in sensitizing the students towards the pressing issues and conditions prevailing in the society.
   Besides subjects like Commerce & Accountancy which facilitate the students with deep understanding of various aspects of the business, the students also study subjects like Business Law which give them knowledge about the legal framework of the business. The applied components also give students a choice to learn Business Management subjects which makes them proficient in Management skills. Various other subjects equip students with linguistic skills and market related knowledge and open various opportunities for jobs and facilitate holistic and all round development of students.
5. Course outcome (separate for each course):

Course code	Title of the course	Course credit	Course outcome
FYBCOM	Commerce I & II (Introduction to Business & Service sector)	03	1. To familiarize the students with basic concepts of business & Service sector. 2. To develop knowledge and understanding of business & Service sector. 3. To make students aware of current trends in business & service sector.
SYBCOM	Commerce III & IV	03	. 1. To make the learners aware about conceptual knowledge and evolution of Management & Production Management, Inventory Management & Quality Management . 2. To provide basic knowledge of Indian Financial System

		03	. 3. To familiarize the learners about the functions of Management, the recent trends in Management & Finance
	Advertising	03 03	1. To highlight the role of advertising for the success of brands and its importance within the marketing functions of a company. 2. It aims to orient learners towards the practical aspects and techniques of advertising. 3. To lay down foundation for advanced post- graduate courses in advertising.
	Company Secretarial Practice (CSP)		1. To provide the learners an insight about Company Secretarial Practices. 2. To make the learners understand the role of Company Secretary towards Company's statutory provisions, rules and regulations. 3. To make the learners understand the various aspects of Company Management, meetings and reports
	Field Sales Management (FSM)		1. To understand the concept of Field Sales Management 2. To make learners aware about practical implications of Sales Management
TYBCOM	Commerce V & VI	03	1. To make the learners aware about conceptual knowledge and evolution of Marketing & Human Resource Management 2. To make the learners understand the various aspects of Marketing and Human Resource Management 3. To familiarize the learners about the functions of Management, the recent trends in Marketing & Human Resource Management.
	Marketing Research		1. To understand the role of Research in making marketing decisions 2. To understand the process of marketing

		03	research 3. To be familiar with both print and electronic sources of secondary data 4. To exhibit an understanding of qualitative and quantitative research methods and their application to marketing research
	Export Marketing	03	1. To acquaint students with India's export Marketing potential. 2. To make them aware about the practical significance of Export Marketing. 3. To give them conceptual understanding and clarity of terminology used in Export Marketing.
	BM paper Management and organization development	03	1. To enable the students to obtain the knowledge and skills required in the field of organization and management. 2. To enable the students to understand the importance of management, management thoughts and its relevance. 3. To acquaint students with different concepts of management like MBO, MBE, MIS etc.
	BM paper II Financial Management Sem V and VI	03	1. It enables the students to understand the acquisition and use of funds by business organization. 2. It enables the students to understand the methods and devices used in analysis of financial statements, which can be used by firms depending upon the nature of information required. 3. It makes the students to learn ratio analysis by which the relationship of items or groups of items in the financial statements are computed, determined and presented. 4. Students would become familiar with the techniques used in capital budgeting. 5. They would understand the need and importance of working capital management. 6. They would understand the basic principles of costing.

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LEARNING OUTCOMES

SCIENCE FACULTY

DEPARTMENT OF BOTANY

Semester V Learning outcomes

Paper I

The students would be able:

- To gain knowledge about microbial diversity and techniques for culturing and visualization.
- To understand the salient features of three major groups of algae, their life cycle patterns with a suitable example; to be able to identify them.
- To learn the general characteristics and classification of two major groups of fungi along with life cycles of each group; to be able to identify them.
- To understand the scope and importance of Plant Pathology and apply the concepts of various control measures of commonly widespread plant diseases.

Paper II

The students would be able:

- To acquire knowledge of different fossil forms and understand their role in evolution.
- To provide plant description, describe the morphological and reproductive structures of seven families and also identify and classify according to Bentham and Hooker's system.
- To gain proficiency in the use of keys and identification manuals for identifying any unknown plants to species level.
- To relate anomalies in internal stem structure with function and appreciate the salient features of the root stem transition zone.
- To get exposure to pollen study and learn to apply it in various fields.

Paper III

The students would be able:

- To acquire knowledge about two important organelles and molecular mechanisms of translation
- To understand water relations of plants, inorganic and organic solute transport, and apply the knowledge to manage mineral nutrition and survival in challenging abiotic stresses.
- To understand succession in plant communities and study remediation technologies in order to apply knowledge acquired for cleanup of polluted sites.
- To get exposure to principles and techniques of plant tissue culture and apply these studies for improving agriculture and horticulture and to become an entrepreneur.

Paper IV

The students would be able:

- To get exposure to the technique of mushroom cultivation and explore the possibility of entrepreneurship in the same.
- To learn ethnobotanical principles, applications and utilize indigenous plant knowledge for the cure of common human diseases and improvement of agriculture.
- To gain knowledge about the latest molecular biology techniques for isolation and characterization of genes.

- To learn principles and application of commonly used techniques in instrumentation.
- To gain proficiency in the monograph study and pharmacognostic analysis of six medicinal plants.

Semester VI Learning outcomes

Paper I

The students would be able:

- To identify, describe and study in detail the life cycles of three Bryophytes.
- To and study in detail classification and general characters of three classes of Pteridophytes and identify as well as describe the life cycles of one example from each class.
- To study evolutionary aspects and economic utilization of Bryophytes and Pteridophytes.
- To identify, describe and study in detail the life cycles of three Gymnosperms.

Paper II

The students would be able:

- To study contribution of Botanical gardens, BSI to Angiosperm study and provide plant description, describe the morphological and reproductive structures of seven families.
- To gain exposure to a phylognetic system of classification.
- To gain insight into the anatomical adaptations of different ecological plant groups.
- To understand development plant of male and female gametophytes, embryonic structure and development.
- To understand the different aspects and importance of Biodiversity and utilize them for conservation of species so as to prevent further loss or extinction of Biodiversity and preserve the existing for future generations.

Paper III

The students would be able:

- To study various plant biomolecular structures and appreciate the structures, role, functions and applications of enzymes.
- To gain insight into the Nitrogen and plant hormone metabolism with applications of the same in agriculture and horticulture.
- To understand principles of genetic mapping, mutations and solve problems based on them, gain knowledge of various metabolic disorders and their implications.
- To generate and test hypotheses, make observations, collect data, analyze and interpret results, derive conclusions, and evaluate their significance within a broad scientific context, using suitable statistical techniques.

Paper IV

The students would be able:

- To gain insight into recent molecular biology techniques for DNA analysis and amplification and Bar-coding techniques and applications therein.
- To understand and apply tools of Bioinformatics for data retrieval and phylogenetic analysis.
- To learn about the sources of economically important plants in the field of fats and oils and apply it for extraction, dealing with entrepreneurship in the field.
- To gain knowledge and proficiency in preservation of post harvest produces and explores the possibility of entrepreneurship in the field.

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LEARNING OUTCOMES

SCIENCE FACULTY

DEPARTMENT OF CHEMISTRY

1. Name of Department: Chemistry
2. Title of Programme: B.A. / B.Sc. / B.Com. / B.M.M. (Strike out which is not required)
3. Programme outcome: B.Sc.
   1. To make the learner capable of acquiring or pursuing a source of livelihood like jobs in chemical industry
   2. To arouse the interest to pursue higher levels of learning in chemistry
4. Programme specific outcome: B.Sc. in Chemistry
   1. To infuse in the learner a spirit of inquiry into the fundamental aspects of the various core areas of Chemistry.
   2. To make the learner capable of solving problems in the various units of the mentioned course
   3. To give the learner an opportunity to get hands on experience of the various concepts and process in various branches of chemistry
5. Course outcome (separate for each course):

Class: FYBSC (Chemistry)

Sr. No.	Semester	Course Code	Title of Course	Course Credit	Course Outcome
1	Semester I	USCH101	Physical, Inorganic, Organic Chemistry	2	To introduce learner to some basic aspects in various core branches of Chemistry like Physical Chemistry, Inorganic Chemistry & Organic Chemistry
		USCHP1	Chemistry Practicals	2	
2		USCH102	Physical, Inorganic, Organic Chemistry	2	
		USCHP2	Chemistry Practicals	2	
3	Semester II	USCH201	Physical, Inorganic, Organic Chemistry	2	
		USCHP1	Chemistry Practicals	2	
4		USCH202	Physical, Inorganic, Organic Chemistry	2	

		USCHP2	Chemistry Practicals	2	

Class: SYBSC (Chemistry)

Sr. No.	Semester	Course Code	Title of Course	Course Credit	Course Outcome
1	Semester III	USCH301	Physical, Inorganic, Organic Chemistry	2	The syllabus is designed to retain the interest of the serious learner of Chemistry as well as be helpful to non-chemistry learners. For those students who would want to pursue other branches of science but would want to acquire a basic appreciation and experience of chemistry, a separate Analytical Chemistry Paper is designed.
		USCHP1	Chemistry Practicals	1	
2		USCH302	Physical, Inorganic, Organic Chemistry	2	
		USCHP2	Chemistry Practicals	1	
3		USCH303	Analytical Chemistry	2	
		USCHP3	Chemistry Practicals	1	
4	Semester IV	USCH401	Physical, Inorganic, Organic Chemistry	2	
		USCHP1	Chemistry Practicals	1	
5		USCH402	Physical, Inorganic, Organic Chemistry	2	
		USCHP2	Chemistry Practicals	1	
6		USCH403	Analytical Chemistry	2	
		USCHP3	Chemistry Practicals	1	

Class: TYBSC (Chemistry)

Sr. No.	Semester	Course Code	Title of Course	Course Credit	Course Outcome
1	Semester V	USCH501	Physical Chemistry	2	This course will provide an insight into some of the fundamental concepts and Principles those are very essential in the study of chemistry. To learn atomic structure, basics of thermodynamics and the concept of equilibrium.
		USCHP01	Physical Chemistry Practicals	2	

2		USCH502	Inorganic Chemistry	2	The students will get training for systematic qualitative analysis and preparation & estimation of simple inorganic complexes.
		USCHP05	Inorganic Chemistry Practicals	2	
3		USCH503	Organic Chemistry	2	To understand the basic concepts and mechanism in organic chemistry, To know stereochemistry and various possible conformations of organic compounds and how it affects the reaction outcome, To be familiarize with the important photochemical reactions in Organic Chemistry, To learn the separation and purification of an organic mixture by chemical/physical separation methods.
		USCHP09	Organic Chemistry Practicals	2	
4		USCH504	Analytical Chemistry	2	This course will provide an insight into some of the fundamental concepts and principles of Analytical Chemistry.
		USCHP13	Analytical Chemistry Practicals	2	
5		USACDD501	Drugs and Dyes	2	In this course, the synthesis and usefulness of different dyes is discussed. This course further deals with the structural determination, synthesis and uses of some drugs.
		USACDD5P1	Drugs and Dyes Practicals	2	
6	Semester VI	USCH601	Physical Chemistry	2	To get an overview about the structure and properties of solid crystals and liquid crystals, to know the characterisation of crystals using X-Ray diffraction, to learn the important aspects of gaseous state and electrochemistry, to study the principle, instrumentation and applications of diffraction method, fluorescence spectroscopy, atomic spectroscopy & electroanalytical techniques Enable the students to determine the various physical properties using simple instrumental methods like polarimetry, refractometry etc.
		USCHP02	Physical Chemistry Practicals	2	
7		USCH602	Inorganic Chemistry	2	To understand the applicability of group theory in coordination chemistry, to know the utility of
		USCHP06	Inorganic	2	

			Chemistry Practicals		spectroscopic methods such as IR, Raman, EPR and Mossbauer techniques for the characterisation of inorganic complexes, to understand the photochemistry of inorganic compounds, to introduce the students the emerging field of nanochemistry and its fascinating aspects, to study the acid –base concept in non-aqueous media and reactions in non-aqueous media
8		USCH603	Organic Chemistry	2	To get a brief idea about emerging branches in chemistry like supramolecular chemistry, nanochemistry, medicinal chemistry, polymer chemistry & its applications, to learn the principles of green chemistry and to know the various green protocols in organic synthesis, to study the important stereoselective transformations in organic synthesis, to know the basic aspects of natural product chemistry, to get an overview about research process and to gain the ability to apply various research methods
		USCHP10	Organic Chemistry Practicals	2	
9		USCH604	Analytical Chemistry	2	• To get a basic idea about polarography, its theory and applications • To get basic knowledge about amperometry and its applications in various titration curves • To get an outline about the types as ligands for chelating agents and various types of complex metric titrations • To learn about estimation of hardness of water through complex metric titrations • To know about the various radio analytical methods for learning the reaction rates, the age of the materials, to develop tracers for various organs and tissues • To obtain a detailed knowledge about Atomic absorption spectroscopy for studying the concentration of various elements
		USCHP14	Analytical Chemistry Practicals	2	

					• To study about the stages of thermal degradation patterns of materials using TGA & DTA techniques
10		USACDD605	Drugs and Dyes	2	In this course, the synthesis and usefulness of different dyes & drugs is discussed. This course further deals with the synthesis of the same.
		USACDD6P1	Drugs and Dyes Practicals	2	

Class: M.Sc. (Chemistry)
Sem-I & Sem-II

Sr. No.	Semester	Course Code	Title of Course	Course Credit	Course Outcome
1	Semester I	PSCH101	Physical Chemistry		To learn the concepts of the activity coefficients and electrochemical cell. To learn the determination of IR and Raman activity of vibrational modes in non linear molecules To study selection rules for electronic transitions.
		PSCHP101	Physical Chemistry Practicals		
2		PSCH102	Inorganic Chemistry		To learn about bonding in polyacids, inorganic polymers, formation, factors that affect stability of complexing stereo isomerism of inorganic complexes and crystal field theory and its limitations.
		PSCHP102	Inorganic Chemistry Practicals		
3		PSCH103	Organic Chemistry		• To learn the concept stereochemistry and its importance • To know what is aliphatic nucleophilic substitution • To understand the various types of aliphatic nucleophilic substitution • To learn what is aromatic substitution reaction • To familiarize the various types of aromatic substitution
		PSCHP103	Organic Chemistry Practicals		

					reaction and their Mechanism • To understand the concept & various types of aromaticity • To learn the stereochemistry substitution and aromaticity • To learn familiar name reactions, to identify the stereochemical notation
4		PSCH104	Analytical Chemistry		To learn about several methods of analytical techniques. This course gives detail knowledge to the student about the analysis of statistical data they got through from different chemical experiment. Data analysis is very important for modern chemical sciences. This course gives a detail knowledge to the student about the analysis of statistical data they got through from different chemical experiment.
		PSCHP104	Analytical Chemistry Practicals		
5	Semester II	PSCH201	Physical Chemistry		• To study the theory of Debye Huckel rule, limitations and its applications. • To know the structure of electrical double layers of Helmholtz, perrin-guoy-chapman. • To know the adsorption of electrolyte interface. • To practice the mechanism of hydrogen and oxygen evolution
		PSCHP201	Physical Chemistry Practicals		

					reaction. • To study the Butler Volmer equation for one step and multi step electron transfer • reaction • To study symmetry elements and symmetry operations • To know the orthogonality theorem and its consequences
6		PSCH202	Inorganic Chemistry		• To know the structure and bonding in molecules / ions and predict the structure of molecules / ions. • To learn the periodic properties of the different groups of compounds focusing on production methods and application of selected elements and compounds. • To know the different definitions of acids / bases and predict the reactions between acids and bases
		PSCHP202	Inorganic Chemistry Practicals		
7		PSCH203	Organic Chemistry		• To learn the mechanism of addition and elimination reaction, oxidation of methylene to carbonyl, oxidation of aryl methanes, allylic oxidation of olefins, reduction and coupling reaction. • To get a clear picture about the nucleophilic and electrophilic groups • To learn the addition reactions which are
		PSCHP203	Organic Chemistry Practicals		

					happening through the nucleophiles and electrophiles • To learn about the addition reactions between a hetero atom and double bonded carbon compounds • To gain knowledge about some specific compounds like Grignard reagents, nitrenes etc • To obtain an outline about elimination reactions and rules used to study elimination reactions • To learn about some specific examples of elimination reactions • To learn the basic mechanism of oxidation in organic compounds • To acquire knowledge about the reagents which causes oxidation in various compounds • To learn about the two types of reduction reactions like complete reduction and selective reduction • To know the reagents that causes selective and complete reduction
8		PSCH204	Analytical Chemistry		• To get a basic idea about polarography, its theory and applications • To use the polarographic technique for studying the chemical equilibrium and rates of reactions in solutions • To get basic
		PSCHP204	Analytical Chemistry Practicals		

					knowledge about amperometry and its applications in various titration curves • To study about applications of cyclic voltammetry in electron transfer reactions • To get an outline about the types as ligands for chelating agents and various types of complex metric titrations • To know about the various radio analytical methods for learning the reaction rates, the age of the materials, to develop tracers for various organs and tissues • To obtain a detailed knowledge about Atomic absorption spectroscopy for studying the concentration of various elements • To study about the stages of thermal degradation patterns of materials using TGA and DTA techniques

Class: M.Sc. (Chemistry)
Sem-III & Sem-IV

Sr. No.	Semester	Course Code	Title of Course	Course Credit	Course Outcome
1	Semester III	PSCH301	Theoretical Organic Chemistry-I		To impart the students a thorough knowledge about the chemistry of some selected functional groups with a view to develop proper aptitude towards the study of organic compounds and their reactions.
		PSCH3P1	Practicals		
		PSCH302	Synthetic organic Chemistry-I		Synthesis of organic reaction is itself involves a large part

2		PSCH3P2	Practicals		of organic chemistry. This is called synthetic organic chemistry. This is discussed in a simple way for some simple molecule to the students. This includes fragmentation and retrosynthetic analysis and also finding synthon or reactive starting molecule of a target molecule.
3		PSCH303	Natural Products and spectroscopy		To impart the students thorough idea in the chemistry of carbohydrates, heterocyclic compounds, amino acids, proteins and nucleic acids. To study the fundamentals of terpenoids, alkaloids, vitamins, lipids and steroids. To determine the structure is very important for organic chemist. Various spectroscopic methods are available like NMR, IR, UV absorption spectroscopies are few of them. The students are given a very preliminary idea on in this course.
4		PSCHOEC-I 304	Medical Biogenesis and Green Chemistry		To understand the connection at the chemical level between all matter and will develop your inquiry based activities to explore best practices related to organic farming and resource management. To about the advance technology in green chemistry How they impact the human body, to develop your particular interests on the topic. To describe how Green chemistry and sustainability developments affect society, the environment and economic development To explain how Green chemistry and sustainability relates to problems of societal

					concern
5		PSCHOEC-II 305	Biorganic Chemistry		Not Applicable
6	Semester IV	PSCHO401	Theoretical Organic Chemistry-II		To enable the students to understand and study Organic reaction mechanisms.
		PSCHO4P1	Practicals		
7		PSCHO402	Synthetic organic Chemistry-II		Synthesis of organic reaction is itself involves a large part of organic chemistry. This is called synthetic organic chemistry. This is discussed in a simple way for some simple molecule to the students. This includes fragmentation and retrosynthetic analysis and also finding synthon or reactive starting molecule of a target molecule.
		PSCHO4P2	Practicals		
8		PSCHO403	Natural Products and Heterocyclics		Heterocyclic compounds are very interesting due to their distinct structure and the availability of this kind of heterocyclic structures in medicinal drugs. So the technique of synthesis of heterocyclic compounds is important in the synthesis of different drugs. This course gives the quantitative ideas about the synthesis, properties and uses of such heterocyclic compounds like pyrole, pyridine qunolene, thiophene, furan etc.
9		PSCHOOC-I 404	Intellectual Prop. Rights and Cheminformatics		Not Applicable
10		PSCHOOC-II 404	Research methodology		To get an overview about research process and to gain the ability to apply various research methods and techniques.

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LEARNING OUTCOMES

SCIENCE FACULTY

DEPARTMENT OF MATHEMATICS

1. Name of Department: Mathematics
2. Title of Programme: ~~B.A. /~~ B.Sc. ~~/ B.Com. / B.M.M~~. (Strike out which is not required)
3. Programme outcome:--
4. Programme specific outcomes for BSc (Math)
    - Mathematical knowledge: Emphasis on foundations of Pure Math courses: Single and Multivariable Calculus, Linear Algebra, Abstract Algebra, Real Analysis and Discrete Math.
    - Problem solving skills: To acquire problem-solving skills in a broad range of mathematics and apply them to other disciplines whenever appropriate.
    - Logical and Analytical skills: The ability to formulate proofs and to structure mathematical arguments, able to produce and judge the validity of rigorous mathematical arguments.
    - Programming skills: Courses in SQL, Java programming and Java Applets, Python.
    - Confidence to use math and programming in their careers.
    - Can secure jobs related to content development / teaching
5. Course outcome (separate for each course):

Course code	Title of the course	Course credit	Course outcome
USMT501, 601	Multivariable Calculus and Basic complex Analysis	2.5+2.5	Eligibility to pursue post graduation in pure Mathematics, Financial Mathematics and Economics
USMT502, 602	Linear Algebra and Abstract Algebra	2.5+2.5	Eligibility to pursue post graduation in pure Mathematics, Industrial Mathematics and Economics
USMT503, 603	Topology of Metric spaces and Real analysis	2.5+2.5	Eligibility for pursuing courses in higher mathematics like Functional Analysis, Differential Geometry, Algebraic Geometry etc
USMT5C4, 6C4	Graph Theory and Discrete Mathematics	2.5+2.5	Eligibility to Mathematics for Computer science
USACCS501, 601	Computer Programming and system analysis	4+4	Eligibility to pursue higher studies in IT and Computer Science Can apply for jobs in software industries

Smt. Chandibai Himathmal Mansukhani College, Ulhasnagar – 3

LEARNING OUTCOMES

SCIENCE FACULTY

DEPARTMENT OF MICROBIOLOGY

	FYBSC	
Course code	Title of the course	Course credit
USMB101 USMB102 USMB201 USMB 202	Fundamentals of microbiology Basic techniques in microbiology. Basics of microbiology. Exploring microbiology.	3 3 3 3
Course outcome FYBSc Microbiology - Microbiology is restructure according to the CBCS pattern for its implementation from 2016-2017. While earlier revision of the syllabus took care of balancing both the basic techniques and some of the advance techniques (as remaining will be introduced phase wise at S.Y.B.Sc. and T.Y.B.Sc level) in Microbiology, the present revision is related to restructuring of syllabus as per CBCS pattern. The concepts of Biosafety, Validation, Calibration and SOPs have been introduced to make the learners aware about:-i. The biological hazards and safety measures ii. Importance of Validation and Calibration of Scientific equipments in industries and laboratories. iii. Writing of SOPs for instruments and their importance at work. The unique chemistry of living systems results in large part from the remarkable and diverse properties of Biomacromolecules. Macromolecules from each of the four major classes may act individually in a specific cellular process, where as others associate with one another to form supramolecular structures. All of these structures are involved in important cellular processes. Since the arrival of information technology, biochemistry has evolved from an interdisciplinary role to becoming a core program for a new generation of interdisciplinary courses such as bioinformatics and computational biochemistry. Hence the module of macromolecules has been included in the revised syllabus to teach students the structure and function of biomolecules at an entry level with an objective to raise the student's awareness of the applicability of microcomputers in biochemistry as they go to the higher classes.		
SYBSC		
Course code	Title of the course	Course credit
USMB301 USMB302 USMB303 USMB401 USMB 402 USMB403	• Biomolecules and Microbial taxonomy • Environmental Microbiology • Introduction to Clinical Microbiology • Metabolism & Basic Analytical Techniques • Applied Microbiology • Soft Skills ,Advances & Applications Of Microbiology	3 3 3 3 3 3
Course outcome SYBSc Microbiology: Objective is to create a curriculum where students are given a chance to learn course of their choice from other subjects, giving them opportunity to choose from a bouquet of Science Courses relevant to their curiosity and future career goal. The process was initiated with		

restructuring of FYBSc syllabus according to this CBCS pattern and its implementation in year 2016-2017. As a continuation of this theme, the restructured syllabus of SYBSc is prepared as per the CBCS pattern. As a part of this theme, in SYBSc Paper III in all subjects is available to any BSc student irrespective of their subject combination. So students of any subject interested in Microbiology can opt for Paper III of Microbiology course. Likewise Microbiology Students can opt for Paper III of any subject available in their College. Since this paper is open to all students, 2 options are created to provide diversity of applied topics and choice for student and students can select any one option (provided it is offered by their college) relevant to their curiosity and future career goal.

	FYBSC	
Course code	Title of the course	Course credit
USMB501	Microbial Genetics	4
USMB502	Medical Microbiology & Immunology: Part - I	4
USMB503	Microbial Biochemistry: Part –I	4
USMB 504	Bioprocess Technology: Part - I	4
USMB 601	DNA Technology, Bioinformatics & Virology	4
SMB 602	Medical Microbiology & Immunology: Part - II	4
USMB 603	Microbial Biochemistry: Part –II	4
USMB 604	Bioprocess Technology: Part – Iiz 1a`	4

Course outcome

MICROBIAL GENETICS (USMB-501)

LEARNING OBJECTIVES

Microbial Genetics (USMB-501) is a course in Genetics for T.Y.B.Sc. undergraduate students in Semester V that deals with various concepts of Genetics.

The learning objectives include the following:

1. DNA Replication: The learner will understand the events occurring in both Prokaryotic and Eukaryotic DNA replication, with a focus on the involvement of Proteins and Enzymes at the cellular level. The topic will also include the assembly of Eukaryotic chromosome.
2. Transcription, Genetic Code and Translation: This module aims at the learner understanding the basis of gene expression and the Central Dogma and the molecular basis of protein synthesis in Prokaryotes and Eukaryotes. The module deals with the structure and properties of different forms of RNA, maturation of RNA and RNA splicing.
3. Mutation and DNA repair: The molecular basis and types of mutation, their cause, effect and DNA repair is studied. The basic concepts related to molecular biology are explained.
4. Genetic exchange: This module includes the study of various mechanisms of gene transfer in bacteria. It also provides insight into the mechanisms of genetic recombination. The module deals with the Genetics of bacteria and bacteriophages, development of new strains and genetic mapping.
5. Practicals

The laboratory techniques and experiments based on these topics will give students hands on competence in fundamental molecular biology experiments.

LEARNING OUTCOMES:

DNA Replication: The learner will understand the sequence of events, mechanism, enzymes and proteins involved in replication of DNA in prokaryotes and eukaryotes.

Transcription, Genetic Code and Translation: The student will know the central dogma of

biology its two-step transcription and translation, maturation of RNA.

Mutation and DNA repair: The learner will know the concept of mutation, its types, causes and their effects. This module will also make them understand types of mutagens, damage to DNA due to mutagenesis, various mechanisms of DNA repair.

Genetic exchange: The student shall understand the various mechanisms of gene transfer in bacteria and genetic recombination.

Practicals: The students will acquire skill to perform the laboratory techniques and experiments based on the above topics.

MEDICAL MICROBIOLOGY & IMMUNOLOGY: PART-I (USMB-502)

LEARNING OBJECTIVES

The course in medical microbiology has been designed to help students to build on the basic information regarding host defence mechanisms that they have gained in S.Y.B.Sc. It has been designed to highlight the most important areas of medical microbiology i.e. etiology, transmission, pathogenesis, clinical manifestations, laboratory diagnosis, prophylaxis, and treatment of various diseases The students have achieved a basic understanding of Innate Immunity and Host defence mechanisms in their lower classes and Immunology that forms an integral part of Medical Microbiology has been designed to help understand the ability of our immune system to defend against invading pathogens in a logical fashion. This includes our ability to defend against microorganisms by understanding the concepts of Humoral and Cellular Immunity (innate immunity) the tissues and organs of the immune system types of antigens we encounter and very importantly, the different types of antigen-antibody reactions.

LEARNING OUTCOMES: The students should be able to

Give details of the virulence factors and other features of the pathogen

Correlate these virulence factors with the pathogenesis and clinical features of the disease

Comment on the mode of transmission, and therefore modes of prophylaxis of these diseases

Comment on the methods of diagnosis of the disease.

Conceptualize how the adaptive immune responses coordinate to fight invading pathogens and the organs and tissue involved

Discuss the role of antigen in initiating the immune response

Correlate the structure & functions of immunoglobulin

Understand the importance of cytokines, MHC, APCs, Cytokines, and the role in adaptive immunity.

Understand the various antigen –antibody reactions

MICROBIAL BIOCHEMISTRY: PART-I (USMB-503)

LEARNING OBJECTIVES

This course is designed for T.Y.B.Sc. students who choose to major in Microbiology. Biochemistry is the branch of science that explores the chemical processes that take place inside all living things, from bacteria to plants and animals. It is a laboratory based science that brings together biology and chemistry, by using chemical knowledge and techniques to help understand and solve biological problems. Microbial physiology is best understood with knowledge of biochemistry. The course thus focuses on the need to study uptake, various intermediary metabolic processes and methods to study metabolism both invitro as well as invivo. The course is designed to expose students to carbohydrate metabolism as also understand the principles of energy generation by different physiological groups of organisms. The advanced area of bioenergetics unfolds the universal mechanisms of energy generation by using electron transport systems and gaining knowledge of energy conservation. The student is also learning anabolic processes through concepts of biosynthesis, and polymerization namely glycogen and peptidoglycan biosynthesis.

LEARNING OUTCOMES: The students should be able to

Understand the architecture of the membrane and how solute is transported inside the cell.

Describe and explain the electron transport chains in prokaryotes and mitochondria and understand the mechanism of ATP synthesis.

Explain bioluminescence mechanism and its significance

Discuss the experimental aspect of studying catabolism and anabolism and the various pathways for the breakdown of carbohydrates along with reactions in amphibolic pathways.

Describe various other pathways which produce different end products.

Describe anabolic reactions in carbohydrate synthesis.

Apply the concepts of energetics and catabolism in biodegradation of various substrates.

BIOPROCESS TECHNOLOGY: PART-I (USMB-504)

LEARNING OBJECTIVES

Bioprocess Technology I course is designed to develop the learner's ability to study the techniques used in the different phases of industrial microbiology such as strain improvement, basic fermentation equipment & its sterilization aspects. It gives an in depth focus of the different types of fermenters used in industry for production of different products, and also emphasizes its process parameters. It includes the principles and describes the main steps and processes in the industrial production of beverages and enzymes.

Industrial microbiology becomes an important application based paper covering microbial fermentations. Thus, it becomes a laboratory to market scenario where the entire products reach. The learner is provided with the details of productions of important traditional fermentation products like wine, beer, vinegar and enzymes.

Thus, this paper readies the learner to understand and apply the knowledge of fermentation technology and related products.

This course aims to enable graduates to enter industry with an appropriate level of understanding of the need for both the science and business aspects to be achievable to make a viable product and enhance their entrepreneur skills.

LEARNING OUTCOMES: The students should be able to

Describe the applications of microbes and its strain improvement in Industrial Microbiology.

Apply kinetic formula to determine growth and productivity parameters of batch continuous, fed batch and solid substrate fermentations

Describe the design of bioreactors for different applications and its process parameters

Design media, growth conditions and techniques for producing and recovering different types of products of commercial value.

Learner will be well –versed with the containment and levels of containment.

rDNA TECHNOLOGY, BIOINFORMATICS & VIROLOGY (USMB-601)

LEARNING OBJECTIVES

rDNA technology, Bioinformatics and Virology, USMB 601 is a course for T.Y.B.Sc. in Semester VI Microbiology students which deal with the following:

1. The rDNA technology: This module deals with the basic steps in gene cloning, vectors, model organisms, methods of transformation and screening and identification of recombinant cells.

2. Application of rDNA technology and Bioinformatics: This module will empower the student to understand the basic techniques in Recombinant DNA technology along with their applications. Bioinformatics is the basic tool in understanding Cells at the genomic and proteomic levels. Inclusion of Bioinformatics in this module will empower the learner with insilico analytical techniques.

3. Gene Regulation and Basic Virology: This module will make the students understand the genetic basis of regulation and operon control through the involvement of regulatory proteins. The

study of Basic Virology will emphasise on the structure, classification and general modes of replication of viruses.
4. Advanced Virology: This module deals with basic structure and life cycle of different viruses and cultivation of viruses. It also comprises of basic study on Prions, Viriods and viruses causing cancer.

LEARNING OUTCOMES:

r DNA technology : This module will make the student understand the methods to construct recombinant DNA molecules, also know the tools required like vectors, restriction enzymes etc.

Application of rDNA technology and Bioinformatics: The learner will know about applications of r DNA technology, through bioinformatics the student will understand the use of databases and software tools for understanding biological data.

 Gene Regulation and Basic Virology: The student will know about gene expression in prokaryotes, operon as a unit of gene regulation, regulation of gene expression in prokaryotes and bacteriophages. The student will also understand about general structure, life cycle and classification of viruses.

Advanced Virology The learner will understand the basic structure and life cycle of different viruses and their cultivation. The student will get basic knowledge on Prions, Viriods and viruses causing cancer.

Practicals: The students will acquire skill to perform the laboratory techniques and experiments based on the above topics. The students will understand computational biology and insilico analytical techniques.

MEDICAL MICROBIOLOGY & IMMUNOLOGY: PART - II
(USMB-602)

LEARNING OBJECTIVES

Medical microbiology encompasses the etiology, transmission, pathogenesis, clinical manifestations, laboratory diagnosis, prophylaxis, and treatment of various diseases that are most common to humans through which the students build on the basic information regarding host defence mechanisms that they have gained in S.Y.B.Sc. A separate unit is based on chemotherapy that is available for infectious agent and the misuse of antibiotic in generation of multiple resistance strains. Immunology is an integral part of Medical Microbiology and this course is designed for T.Y.B.Sc. Microbiology students, on the assumption that the students have achieved a basic understanding of Innate Immunity and Host DefencePage 28 of 45

mechanisms. The course has been designed to help understand the ability of our immune system to defend against invading pathogens in a logical fashion. This includes the role of T and B cells and their role in obtaining acquired immunity. It also includes the role of immunoheamatology in blood transfusion and very importantly, can we prevent pathogens from infecting us (vaccination) and the production and use of monoclonal antibodies.

LEARNING OUTCOMES:

Give details of the virulence factors and morphological and cultural features of the pathogen

Correlate these virulence factors with the pathogenesis and clinical features of the disease

Comment on the mode of transmission, and modes of prophylaxis of these diseases

Given a few key clinical features, identify the likely causative agent.

Comment on the methods of diagnosis of the disease.

Understand the structure and role of T and B cells in generating adaptive immunity and thereby study effector responses in both Humoral& Cell Mediated Immunity Acquire an understanding of the role of immune system in disease:

Understand the activation of complement system

Apply the concept of immunity to prevention of disease by development of vaccines

MICROBIAL BIOCHEMISTRY: PART-II
(USMB-603)
LEARNING OBJECTIVES
Having studied many aspects of microbial physiology in the earlier semester, contents of this semester is designed to understand how myriad organic compounds such as lipids, carbohydrates, proteins and nucleic acids can be utilized by the living cells. These life mechanisms also reveal how biomolecules are synthesized. Since all biosynthetic pathways are denovo or salvage, the vital regulatory role played by enzymes is understood. Various levels and mechanisms of regulation are dealt to make the learner aware of coordinated mechanisms of metabolism in the living cell. Photosynthesis is studied to understand the diversity in mechanism of its electron transfer, pigments and localization of photosynthetic apparatus, although the energy conservation mechanism is not different. Microorganisms are diverse with respect to their metabolism and the field of lithotrophy explains how some universal inorganic compounds can be used to make constituents of cell biomass yet others use them as electron acceptors or reduced compounds as source of energy.
LEARNING OUTCOMES: At the end of the course in Microbial Biochemistry; USMB 603, the learner will have an understanding of the following metabolic process and their significance.

- Metabolism of Lipids. Fatty acids, Nucleotides and Amino acids
- Catabolism of Protein and aliphatic hydrocarbons
- Regulation of metabolic process at various levels
- Photosynthesis
- Metabolism of inorganic molecules with special reference to nitrate and sulfate
- Biological Nitrogen fixation
- Lithotrophy

At the end of the course the learner will also acquire the following practical skills

- Screening of microorganisms producing lipase, PHB and protease
- Detection of activity of enzymes which play an important role in amino acid and nitrate metabolism
- Quantitative detection of important metabolic products such as protein and uric acid.
- Quantitative detection of an important metabolic enzymes- protease

BIOPROCESS TECHNOLOGY: PART-II (USMB-604)
LEARNING OBJECTIVES
Bioprocess Technology II is designed to develop the learner's ability to study the techniques use in the downstream process used for the final product and industrial effluent treatment.
Bioprocess technology II becomes an important application based paper covering microbial fermentations as well as applying the techniques of molecular biology to enzyme technology, animal tissue culture as well as plant tissue culture. Thus, it becomes a laboratory to market scenario where the entire products reach. The learner is provided with the details of productions of important products like antibiotics, vitamins, organic acid, amino acids and mushrooms along with the analysis techniques using various instruments and bioassays.
The learner is expected to learn the need of Quality management and regulatory bodies as the products need to fulfill these requirements. Thus, this paper readies the learner to understand and apply the knowledge of fermentation technology and related products. This course aims to enable graduates to enter industry with an appropriate level of understanding of the need for both the science and business aspects to be achievable to make a viable product and enhance their enterpreunial skills. Page 35 of 45

LEARNING OUTCOMES:

- Understand the actual process involved in fermentations of important products.

To apply the knowledge of applications of animal and plant tissue culture techniques.
Learn the applications of immobilized enzymes in various fields.
Understand the working of important instruments used in biochemical analysis and bioassay.
Learn the salient features of quality management and regulatory procedures.

At the end of the course the learner will also acquire the following practical skills
Techniques involved in running a bioassay, immobilization of cells & sterility testing
Preliminary techniques in animal & plant tissue culture.

Smt. Chandibai Himathmal Mansukhani College, Ulhasnagar – 3

LEARNING OUTCOMES

SCIENCE FACULTY

DEPARTMENT OF PHYSICS

1. Name of Department: Physics
2. Title of Programme: B.A. / B.Sc. / B.Com. / B.M.M. (Strike out which is not required)
3. Programme outcome:

FYBSC PAPER I
Learning Outcomes:
1. Understand Newton's laws and apply them in calculations of the motion of simple systems.
2. Use the free body diagrams to analyze the forces on the object.
3. Understand the concepts of friction and the concepts of elasticity, fluid mechanics and be able to perform calculations using them.
4. Understand the concepts of lens system and interference.
5. Apply the laws of thermodynamics to formulate the relations necessary to analyze a thermodynamic process.
6. Demonstrate quantitative problem solving skills in all the topics covered

FYBSC PAPER II
Learning Outcomes:
1. Understand nuclear properties and nuclear behavior.
2. Understand the type isotopes and their applications.
3. Demonstrate and understand the quantum mechanical concepts.
4. Demonstrate quantitative problem solving skills in all the topics covered.

SYBSc
USPH301 : Mechanics and thermodynamics
Learning Outcomes:
i) Understand the concepts of mechanics & properties of matter & to apply them to problems.
ii) Comprehend the basic concepts of thermodynamics & its applications in physical situation
iii) Learn about situations in low temperature.
iv) Demonstrate tentative problem solving skills in all above areas.

USPH302: Vector calculus, Analog Electronics
Learning Outcomes:
1) Understand the basic concepts of mathematical physics and their applications in physical situations.
2) Understand the basic laws of electrodynamics and be able to perform calculations using them.
3) Understand the basics of transistor biasing, operational amplifiers, their applications
4) Understand the basic concepts of oscillators and be able to perform calculations using them.
5) Demonstrate quantitative problem solving skill in all the topics covered.

USPH303: Applied Physics - I
Learning Outcomes:
i) Students will be exposed to contextual real life situations.
ii) Students will appreciate the role of Physics in 'interdisciplinary areas related to materials, Bio Physics, Acoustics etc.
iii) The learner will understand the scope of the subject in Industry & Research.
iv) Experimental learning opportunities will faster creative thinking & a spirit of inquiry.

SEMESTER V
Theory Course - USPH501: Mathematical, Thermal and
Statistical Physics
Learning outcomes: From this course, the students are expected to learn some mathematical techniques required to understand the physical
phenomena at the undergraduate level and get exposure to important ideas of statistical mechanics. The students are expected to be able to solve simple problems in probability, understand the concept of independent events and work with standard continuous distributions. The students will have idea of the functions of complex variables; solve non homogeneous differential equations and partial differential equations using simple methods. The units on statistical mechanics would introduce the students to the concept of microstates, Boltzmann distribution and statistical origins of entropy. It is also expected that the student will understand the difference between different statistics, classical as well as quantum.

Theory Course - USPH502: Solid State Physics
Learning Outcomes:
1) Understand the basics of crystallography, Electrical properties of metals,
2) Band Theory of solids, demarcation among the types of materials, Semiconductor Physics and Superconductivity.
3) Understand the basic concepts of Fermi probability distribution function, Density of states, conduction in semiconductors and BCS theory of superconductivity.
4) Demonstrate quantitative problem solving skills in all the topics covered.

Theory Course - USPH503: Atomic and Molecular Physics
Learning Outcome:
1) the application of quantum mechanics in atomic physics
2) the importance of electron spin, symmetric and anti symmetric wave functions and vector atom model
3) Effect of magnetic field on atoms and its application
4) Learn Molecular physics and its applications.

Theory Course - USPH504: Electrodynamics
Learning outcomes:
1) Understand the laws of electrodynamics and be able to perform calculations using them.
2) Understand Maxwell's electrodynamics and its relation to relativity
3) Understand how optical laws can be derived from electromagnetic principles.
4) Develop quantitative problem solving skills.

SEMESTER VI
Theory Course – USPH601: Classical Mechanics
Learning outcomes:

This course will introduce the students to different aspects of classical mechanics. They would understand the kinds of motions that can occur under a central potential and their applications to planetary orbits. The students should also appreciate the effect of moving coordinate system, rectilinear as well as rotating. The students are expected to learn the concepts needed for the important formalism of Lagrange's equations and derive the equations using D'Alembert's principle. They should also be able to solve simple examples using this formalism. The introduction to simple concepts from fluid mechanics and understanding of the dynamics of rigid bodies is also expected. Finally, they should appreciate the drastic effect of adding nonlinear corrections to usual problems of mechanics and nonlinear mechanics can help understand the irregularity we observe around us in nature.

Theory Course – USPH602: Electronics
Learning Outcome:

1. Understand the basics of semiconductor devices and their applications.2. Understand the basic concepts of operational amplifier: its prototype and applications as instrumentation amplifier, active filters, comparators and waveform generation.
3. Understand the basic concepts of timing pulse generation and regulated power supplies
4. Understand the basic electronic circuits for universal logic building blocks and basic concepts of digital communication.
5. Develop quantitative problem solving skills in all the topics covered.

Theory Course – USPH603: Nuclear Physics
Learning Outcomes:

1. the fundamental principles and concepts governing classical nuclear and particle physics and have a knowledge of their applications interactions of ionizing radiation with matter the key techniques for particle accelerators
2. the physical processes involved in nuclear power generation. Knowledge on elementary particles will help students to understand the fundamental constituents of matter and lay foundation for the
3. understanding of unsolved questions about dark matter, antimatter and other research oriented topics.

Theory Course – USPH604: Special Theory of Relativity
Learning outcomes:
1. Understand the significance of Michelson Morley experiment and failure of the existing theories to explain the null result
2. Understand the importance of postulates of special relativity, Lorentz transformation equations and how it changed the way we look at space and time, Absolutism and relativity, Common sense versus Einstein concept of Space and time.
3. Understand the transformation equations for: Space and time, velocity, frequency, mass, momentum, force, Energy, Charge and current density, electric and magnetic fields.
4. Solve problems based on length contraction, time dilation, velocity addition, Doppler effect, mass energy relation and resolve paradoxes in relativity like twin paradox etc.

Semester V & VI: Theory
Course Code: USACEI501 & USAEI601
Expected learning outcomes

Learner will be able to:

1. Understand the difference between a transducer and a sensor.
2. Understand the construction, working and uses of different types of transducers.
3. Understand the concept of signal conditioning, devices used and their operations.
4. Get acquainted with the measuring instruments used in laboratory.
5. Get the insight of the modern medical instruments in principle, which are used in day to day life.
6. Analyze/design and implement combinational logic circuits.
7. Develop assembly language programming skills and real time applications of microprocessor.
8. Illustrate how to interface the I/O peripheral (PPI) with 8085 microprocessor
9. Understand architecture, silent features, instruction set, programming and Interfacing of 8051 microcontroller.
10. Develop the programming skills in programming Language C++.
11. Train their practical knowledge through lab experiments.
12. Get practical training to interface different programmable peripherals and I/O devices to microprocessor and microcontroller.

1. Programme specific outcome:

    a. Learners develop analytical approach towards real world problems.
    b. Students develop conceptual understanding of core subject of physics like, thermodynamics, mechanics, quantum mechanics, nuclear physics, electronics etc.,
    c. Learners develop the ability of quantitative problem solving skills
    d. Having developed conceptual understanding and analytical approach, students may utilize their ability to solve unfamiliar problems.
    e. The laboratory practicals make them familiar to various equipments which they can skilfully use to make various working projects.

Smt. Chandibai Himathmal Mansukhani College, Ulhasnagar – 3

LEARNING OUTCOMES

SCIENCE FACULTY

DEPARTMENT OF ZOOLOGY

B. Sc. ZOOLOGY: PROGRAM OUTCOMES

After successful completion of three year degree program in Zoology a student should be able to:

- Demonstrate knowledge in the subject of zoology including classical zoology.
- Demonstrate widening of horizons in the discipline of Biological Sciences.
- Become aware of the current and most recent developments in various branches of Zoological Sciences.
- Employ the skills of reasoning and critical thinking.
- Develop the spirit of enquiry.

B. Sc. ZOOLOGY: PROGRAM SPECIFIC OUTCOMES

- Develop interest in the subject of Zoology.
- Gain knowledge of the basic and modern concepts of Zoology through theory practicals and field visits.
- Realize the importance of abiotic and biotic factors of environment and their conservation.
- Develop insight into the basic nutritional and health aspects of human life.
- Develop good laboratory practices and become trained in scientific handling of important instruments.
- Develop research-oriented skills.

Course Outcomes

USZO101 (Course 1)

Wonders of Animal World, Biodiversity and its Conservation -2 Credits

- Curiosity will be ignited in the mind of learners, to know more about the fascinating world of animals which would enhance their interest and love for the subject of Zoology.
- Learners would appreciate treasure of Biodiversity, its importance and hence would contribute their best for its conservation.
- Minds of learners would be impulsed to think differently and would be encouraged ipso facto to their original crude ideas from the field of biological sciences.

USZO102 (Course 2)

Instrumentation and Animal Biotechnology-2 Credits

- Learners would work safely in the laboratory and avoid occurrence of accidents (mishaps) which will boost their scholastic performance and economy in use of materials/chemicals during practical sessions.
- Learners would understand recent advances in the subject and their applications for the betterment of mankind; and that the young minds would be tuned to think out of the box.
- Students will be skilled to select and operate suitable instruments for the studies of different components of Zoology of this course and also of higher classes including research.

USZO201 (Course 3)
Ecology and Wildlife Management -2 Credits

- This unit would allow learners to study about nature of animal population, specific factors affecting its growth and its impact on the population of other life form.
- Learners will grasp the concept of interdependence and interaction of physical, chemical and biological factors in the environment and will lead to better understanding about implications of loss of fauna specifically on human being, erupting spur of desire for conservation of all flora and fauna.
- Learners would be inspired to choose career options in the field of wild life conservation, research, photography and ecotourism.

USZO202 (Course 4)
Nutrition, Public Health and Hygiene-2 Credits

- Healthy dietary habits would be inculcated in the life style of learners in order to prevent risk of developing health hazards in younger generation due to faulty eating habits.
- Promoting optimum conservation of water, encouragement for maintaining adequate personal hygiene, optimum use of electronic gadgets, avoiding addiction, thus facilitating achievement of the goal of healthy young India in true sense.
- Learners will be able to promptly recognize stress related problems at initial stages and would be able to adopt relevant solutions which would lead to psychologically strong mind set promoting positive attitude important for academics and would be able to acquire knowledge of cause, symptoms and precautions of infectious diseases.

USZO301 (Course 5)
Fundamentals of Genetics, Chromosomes and Heredity, Nucleic acids-2 Credits

- Learner would comprehend and apply the principles of inheritance to study heredity.
- Learner will understand the concept of multiple alleles, linkage and crossing over.
- Learner will comprehend the structure of chromosomes and its types.
- Learner will understand the mechanisms of sex determination.
- Learner would be able to correlate the disorders linked to a particular sex chromosome.
- Learner will understand the importance of nucleic acids as genetic material.
- Learner would comprehend and appreciate the regulation of gene expressions.

USZO302 (Course 6)
Nutrition and Excretion, Respiration and Circulation, Control and Coordination of Life Processes, Locomotion and Reproduction-2 Credits

- Learner would understand the increasing complexity of nutritional, excretory and osmoregulatory physiology in evolutionary hierarchy.
- Learner would be able to correlate the habit and habitat with nutritional, excretory and osmoregulatory structures.
- Learner would understand the increasing complexity of respiratory and circulatory physiology in evolutionary hierarchy.
- Learner will be able to correlate the habit and habitat of animals with respiratory and circulatory organs.
- Learner would be amazed by various locomotory structures found in the animal kingdom.
- Learner would be acquainted with various reproductive strategies present in animals.

USZOE1303 (Course 7A) Elective 1

Ethology, Parasitology, Economic Zoology - 2 Credits

- Learner would gain insight into different types of animal behaviour and their role in biological adaptations.
- Learner would be sensitized to the feelings which are instrumental in social behaviour.
- Learner would understand the general epidemiological aspects of parasites that affect humans and take simple preventive measures for the same.
- Learner would comprehend the life cycle of specific parasites, the symptoms of the disease and its treatment.
- Learner would gain knowledge on animals useful to mankind and the means to make the most of it.
- Learner would learn the modern techniques in animal husbandry.
- Learner would pursue entrepreneurship as a career.

USZO401 (Course 8)

Origin and Evolution of Life, Population Genetics and Evolution, Scientific Attitude, Methodology, Scientific Writing and Ethics in Scientific Research- 2 Credits

- Learner will gain insights into the origin of life.
- Learner will analyse and critically view the different theories of evolution.
- Learner would understand the forces that cause evolutionary changes in natural populations
- Learner would comprehend the mechanisms of speciation.
- Learner will be able to distinguish between microevolution, macroevolution and megaevolution.
- The learner would develop qualities such as critical thinking and analysis.
- The learner will imbibe the skills of scientific communication and he/she will understand the ethical aspects of research.

USZO402 (Course 9)

Cell Biology, Endomembrane System and Biomolecules- 2 Credits

- Learner would acquire insight into the composition of the transport mechanisms adopted by the cell and its organelles for its maintenance and composition of cell.
- Learner would appreciate the intricacy of endomembrane system.
- Learner would understand the interlinking of endomembrane system for functioning of cell.
- The learner will realize the importance of biomolecules and their clinical significance.

USZOE1403 (Course-10A) Elective 1

Comparative Embryology, Aspects of Human Reproduction, Pollution and its effect on organisms- 2 Credits

- Learner will be able to understand and compare the different types of eggs and sperms.
- Learner will be able to understand and compare the differentpre- embryonic stages.
- Learners will able to understand human reproductive physiology.
- Learners will become familiar with advances in ART and related ethical issues.
- The learners will be sensitized about the adverse effects of pollution and measures to control it.

USZO501 (Course 11)

Taxonomy - Invertebrates and Type Study- 2.5 Credits

- Learners will apprehend the basis of classification and modern classification up to class of the lower invertebrate animals.

  The learners will be familiarized with classification up to phylum ANNEXURE 1

- Nematoda along with their examples.
- Learners will get an idea of higher groups of invertebrate animal life, their classification and their peculiar aspects.
- Learners will get an idea of general characteristics and details of invertebrate animal systems.

USZO502 (Course 12)
Haematology and Immunology- 2.5 Credits

- The learner shall comprehend basic haematology.
- The learner will be able to identify various components of haemostatic systems.
- The learner will become familiar with the terminology used and diagnostic tests performed in a pathological laboratory.
- The learner shall be acquainted with diagnostic approaches in haematological disorders.
- The learner will be better equipped for further pathological course or working in a diagnostic laboratory.
- The learner shall comprehend the types of immunity and the components of immune system.
- The learner will realize the significant role of immune system in giving resistance against diseases.
- The learner shall understand immunopathology and the principles and applications of vaccines.
- The learner will develop basic understanding of immunology of organ transplantation.

USZO503 (Course 13)
Histology, Toxicology, Pathology and Biostatistics- 2.5 Credits

- Learner would appreciate the well planned organization of tissues and cells in the organ systems.
- The course will prepare learner to develop broad understanding of the different areas of toxicology.
- It will also develop critical thinking and assist students in preparation for employment in pharmaceutical industry and related areas.
- Learner will be familiar with various medical terminologies pertaining to pathological condition of the body caused due to diseases.
- The learner will be able to collect, organize and analyse data using parametric and nonparametric tests.
- They will also be able to set up a hypothesis and verify the same using limits of significance.

USZO504 (Course 14)
Anatomy and Developmental Biology- 2.5 Credits

Learner will be able to understand the:

- importance of various types of epidermal and dermal derivatives along with their functions.
- structure, types and functions of human skeleton.
- types of long limb muscles, its arrangement and their role in body movements.
- processes involved in embryonic development and practical applications of studying the chick embryology.

USZO601 (Course 15)
Taxonomy - Chordates and Type Study- 2.5 Credits

- Learners will get an idea of origin of Chordates, its taxonomy up to class with reference to phylogeny and their special features.

- Learners will understand the characteristic features and examples of class of Reptilia, Aves and Mammalia.
- Learners will get an idea of vertebrate animal life after studying one representative animal - shark.

USZO602 (Course 16)
Physiology and Tissue Culture- 2.5 Credits

- The learner shall understand fundamentals of enzyme structure, action and kinetics.
- The learner shall appreciate the enzyme assay procedures and the therapeutic applications of enzymes.
- The learner shall comprehend the adaptive responses of animals to environmental changes for their survival.
- The learner shall understand the types and secretions of endocrine glands and their functions.
- The learner shall understand the significance of tissue culture as a tool in specialized areas of research.
- The learner will appreciate its applications in various industries.

USZO603 (Course 17)
Genetics and Bioinformatics- 2.5 Credits
Learner shall get an insight into the intricacies of chemical and molecular processes that affect genetic material.

- The course shall prepare learner to recognize the significance of molecular biology as a basis for the study of other areas of biology and biochemistry.
- Learner shall also understand related areas in relatively new fields of genetic engineering and biotechnology.
- The learner shall get acquainted with the vast array of techniques used to manipulate genes which can be applied in numerous fields like medicine, research, etc. for human benefit.
- The learner shall become aware of the impact of changes occurring at gene level on
- human health and its diagnosis.
- Learner shall become aware of the computational point of view of studying the genomes.

USZO604 (Course 18)
Environmental Biology and Zoopharmacognosy- 2.5 Credits

- Learner will understand the different factors affecting environment, its impact and environment management laws.
- Learner will be able to understand various methods for wildlife conservation.
- Learner will be able to apply knowledge to overcome the issues related to wildlife conservation and management.
- Learner will understand the paradigms of discovery and commercialization of biological resources and knowledge gained from self-medication observed in animals.
- The learners will become acquainted with how and why different animal species are distributed around the globe.

4. Smt. Chandibai Himathmal Mansukhani College, Ulhasnagar – 3

LEARNING OUTCOMES

SELF-FINANCED COURSES

DEPARTMENT OF BCBI

1. Name of Department: B.Com in Banking & Insurance (BCBI)
2. Title of Programme: ~~B.A. / B.Sc. /~~ B.Com. / ~~B.M.M~~. (Strike out which is not required)
3. Programme outcome:
    a. Personality Development of students
    b. Develops financial literacy
    c. Creates awareness about laws and governance.
4. Programme specific outcome:
    a. Fostering Financial Literacy Knowledge
    b. Students will gain professional knowledge about banking industry.
5. Course outcome (separate for each course):

FYBCBI

Sr.No.	Subject code	Name of the subject	Learning Outcomes
1.	UBIFSI.1	EMFS	Giving the knowledge about financial system of the country.
2.	UBIFSI.2	PRINCIPLES OF MANAGEMENT	Impart knowledge about management practices.
3.	UBIFSI.3	FINANCIAL ACCOUNTING-II	Knowledge about financial accounting practices
4.	UBIFSI.4	BUSINESS COMMUNICATION-II	Developing the personality of students by communication in effective manner
5.	UBIFSI.5	FOUNDATION COURSE-I	Sensitize students towards social issues and gender equity.
6.	UBIFSI.6	BUSINESS ECONOMICS-I	To study about Indian economics.
7.	UBIFSI.7	QUANTATIVE METHODS-I	Developing mathematical skills.
	SEM II		
8.	UBIFSI.1	PPBI	Imparting knowledge about principles and practices of B & I
9.	UBIFSI.2	BUSINESS LAW	Imparting knowledge about laws governing B & I
10.	UBIFSI.3	FINANCIAL ACCOUNTING-II	Imparting knowledge about financial practices relating to business.
11.	UBIFSI.4	BUSINESS COMMUNICATION-II	Giving knowledge to students about letter writing and communication.
12.	UBIFSI.5	FOUNDATION COURSE-II	Developing the student's knowledge with basics of social values.
13.	UBIFSI.6	ORGANIZATIONAL BEHAVIOUR	Imparting knowledge about organizational behaviour

14.	UBIFSI.7	QUNANTATIVE METHODS-II	How to apply stastical methods while investment and financial management

SYBCBI

Sr.No.	Subject code	Name of the subject	Learning Outcomes
1.	UBIFSIII.1	FINANCIAL MANAGENT-I	How to do analysis and interpretation of financial statements.
2.	UBIFSIII.2	MANAGEMENT ACCOUNTING	How to represent the financial statements to make policy decisions by managers
3.	UBIFSIII.5	MUTUAL FUND MANAGEMENT	To give training about awareness about capital market and investing in the same.
4.	UBIFSIII.6	IT IN BANKING AND INSURANCE	To develop technological awareness among students.
5.	UBIFSIII.7	FOUNDATION COURSE-III	Giving the students knowledge of banking and insurance rules and regulations.
6.	UBIFSIII.8	FINANCIAL MARKETS	Students learn about Indian financial system and finance
7.	UBIFSIII.9	DIRECT TAXATION	To get knowledge about taxation laws and where they are applicable
	SEM IV		
8.	UBIFSIV.1	FINANCIAL MANAGEMENT-II	Giving knowledge about how to apply financial practices in business.
9.	UBIFSIV.2	COST ACCOUNTING	How to control over the cost and to find the cost per unit of production.
10.	UBIFSIV.5	CUSTOMER RELATIONSHIP MANAGEMENT	Imparting information about how to satisfy the customer by giving offers.
11.	UBIFSIV.6	INFORMATION TECHNOLOGY IN BANKING & INSURANCE-II	To develop technological knowledge among students
12.	UBIFSIV.7	FOUNDATION COURSE-IV	Impart knowledge about different types of Insurance in market and how it works.
13.	UBIFSIV.8	CORPORATE AND SECURITIES LAW	Give knowledge about corporate laws.
14.	UBIFSIV.9	BUSINESS ECONOMICS-II	Imparting knowledge about national income and its impact on growth and development of nation.

TYBCBI (SEM V)

Sr.No.	Subject code	Name of the subject	Learning Outcomes
1.	44301	INTERNATIONAL BANKING & FINANCE	Imparting knowledge about the impact of currency difference on the business
2.	44302	RESEARCH METHODOLOGY	To inculcate the knowledge of research and how the research work is done.
3.	44303	FINANCIAL REPORTING & ANALYSIS	How to make financial statements of Banking & Insurance Co. as per regulation Act.
4.	44304	AUDITING-I	Providing the information about Auditing

			of
5.	44305	STRATEGIC MANAGEMENT	Impart knowledge about management practices and strategy formulation
6.	44306	FINANCIAL SERVICES MANAGEMENT	Impart knowledge about services and capital market
	Sem VI		
7.	85501	CENTRAL BANKING	Impart knowledge about the central banking system in India and its role
8.	85502	SECURITY AND PORTFOLIO MANAGEMENT	Impart knowledge about how to do practical analysis of securities before investment is done by investors
9.	85503	AUDITING-II	Imparting knowledge about accountants, professionalism, ethics, rules and regulations relating to auditing.
10.	85504	HUMAN RESOURCE MANAGEMENT	Imparting knowledge about human resource practices and the challenging role of HR manager
11.	85505	TURNAROUND MANAGEMENT	How to recover sick company by different methods
12.	UBIFSVI.8	PROJECT WORK-I	Develop Research abilities

Smt. Chandibai Himathmal Mansukhani College, Ulhasnagar – 3

LEARNING OUTCOMES

SELF-FINANCED COURSES

DEPARTMENT OF BFM

1. Name of Department: B.Com in Financial Markets (BFM)
2. Title of Programme: ~~B.A. / B.Sc. /~~ B.Com. / ~~B.M.M~~. (Strike out which is not required)
3. Programme outcome:
    a. Personality Development of students
    b. Develops Analytical Skills
    c. Awareness about loss governance and compliance
4. Programme specific outcome:
    a. Fostering Financial Literacy Knowledge
    b. Students will gain professional knowledge about share market
5. Course outcome (separate for each course):

FYBFM SEM-I				
Sr. No.	**Sub. Code**	**Nomenclature**	**Credit point**	**Course outcome**
1	UFMFSI.1	Financial Accounting – I	3	1) To learn how to prepare final accounts of manufacturing concern, sole trader and partnership firm. 2) To understand basic concepts of accounting.
2	UFMFSI.2	Introduction to Financial System	3	1) To explore knowledge about Financial System. 2) To understand various avenues of investments.
3	UFMFSI.3	Business Mathematics	3	1. Develops logical thinking 2. Develops analytical approach
4	UFMFSI.4	Business Communication – I	3	1) To understand the importance of communication in business. 2) To gain knowledge about channels methods and mode of communication. 3) To develop communication skills

5	UFMFSI.5.1	Foundation Course – I	2	1) To understand demographics of India 2) To gain knowledge about political system 3) To understand concept of dispiarity.
6	UFMFSI.6	Business Environment	3	1) To understand how internal and external environment affecting business activities. 2) To know about importance of business components.
7	UFMFSI.7	Business Economics – I	3	1. Develops the understanding about economic scenario 2. Students will acquire knowledge about demand and supply
FYBFM SEM-II				
Sr. No.	**Sub. Code**	**Nomenclature**	**Credit point**	**Course outcome**
1	UFMFSII.1	Financial Accounting – II	3	1) To learn how to value the shares and debentures 2) To understand the procedure of issue of shares and debentures. 3) To gain knowledge how to prepare corporate financial statement.
2	UFMFSII.2	Principles of Management	3	1) To understand the importance of management. 2) To know about different functions of management.
3	UFMFSII.3	Business Statistics	3	1. Develops logical thinking 2. Develops analytical approach
4	UFMFSII.5.1	Foundation Course – II	2	1) To understand human rights 2) To understand concept of liberalization 3) To understand human behavior
5	UFMFSII.4	Business Communication – II	3	1) To develop letter/ written communication in business. 2) To understand the concept of business communication.
6	UFMFSII.6	Environmental Science	3	1) To understand the concept of environment 2) To gain knowledge about importance of environment

7	UFMFSII.7	Computer Skills – I	3	1. Inculcates computer operating skills 2. Increase knowledge about information technology
SYBFM SEM-III				
Sr. No.	**Sub. Code**	**Nomenclature**	**Credit Point**	**Course outcome**
1	UFMFSIII.1	Debt Market – I	3	1) To understand basics of debt market. 2) To learn about various debt instruments.
2	UFMFSIII.2	Equity Market – I	3	1) To learn about basics of capital market. 2) Develop knowledge of primary and secondary market.
3	UFMFSIII.4	Portfolio Management	3	1. To gain knowledge of different securities available for investment. 2. To understand the role of portfolio diversification. 3. To know how to measure risk and return of securities.
4	UFMFSIII.6	Business Law-I	3	1) To gain knowledge about contract act 2) To understand special contract 3) To gain understanding about negotiable instruments
5	UFMFSIII.7.1	Foundation Course in Financial Markets FC-III Money Market	2	1) To understand regulatory frame work of money market 2) To gain knowledge about money market instruments.
6	UFMFSIII.8	Management Accounting	3	1. To know how to measure the performance of company. 2. To understand role of management accounting 3. To understand the interpretation of financial performance.
7	UFMFSIII.9	Computer Skills-II	3	1. Inculcates computer operating skills. 2. Increase knowledge about information technology
SYBFM SEM-IV				
Sr. No.	**Sub. Code**	**Nomenclature**	**Credit point**	**Course outcome**

1	UFMFSIV.1	Debt Market-II	3	1) To learn about fixed income securities. 2) To gain about valuation of fixed income securities.
2	UFMFSIV.2	Equity Market-II	3	1) To understands technical and fundamental analysis of equity market. 2) Develop advance knowledge of equity market.
3	UFMFSIV.4	Merchant Banking	3	1) To gain knowledge about services provided by merchant banks 2) To gain knowledge about regulation related to merchant bank.
4	UFMFSIV.6	Business Law-II	3	1) To understand companies law 2013 2) To gain knowledge about securities law
5	UFMFSIV.7.1	Foundation Course in Financial Market FC-IV Foreign Exchange Markets	2	3. Inculcates Forex trading 4. Increase knowledge about various currencies in forex market.
6	UFMFSIV.8	Corporate Finance	3	1) To understand importance of finance for corporate. 2) To learn how to take financial decision with the help of different methods.
7	UFMFSIV.9	Business Economics-II	3	1) To understand theory and issues of International Trade. 2) To know about the constituents of fiscal policy.
TYBFM SEM-V				
Sr. No.	**Sub. Code**	**Nomenclature**	**Credit Point**	**Course outcome**
1	UFMFSV.1	Marketing of Financial Services	3	1. To know role of marketing in financial services. 2. To know the issues in marketing of services. 3. To understand importance of service marketing.
2	UFMFSV.2	Technical Analysis	3	1. Develop knowledge about technical charts and technical indicators. 2. To understand how to do analysis of stocks.

3	UFMFSV.3	Corporate Accounting	3	1. To learn about the accounting for redemption of preference shares & debentures. 2. To learn about the incorporation of partnerships into companies.
4	UFMFSV.5	Direct Tax – Income Tax	3	1. To understand the provision of determining residential status of individual. 2. To compute taxable income of individuals.
5	UFMFSV.7	Financial Derivatives	4	1) To understand the importance of financial derivative instruments. 2) Develop knowledge about trading in financial derivative.
6	UFMFSV.8	Business Ethics and Corporate Governance	4	1) To understand the importance of ethics 2) To understand the role of corporate governance
TYBFM SEM-VI				
Sr. No.	Sub. Code	Nomenclature	Credit point	Course outcome
1	UFMFSVI.1	Venture Capital and Private Equity	3	1. Understand the strategies of private equity firm. 2. To know about importance of venture capital
2	UFMFSVI.2	Mutual Fund Management	3	1) To learn about the classifications and working of mutual fund. 2) Understand the trading opportunities in mutual fund.
3	UFMFSVI.3	Organisational Behaviour	3	1) Gain knowledge about different types of personality 2) Understand how to handle stress and conflict.
4	UFMFSVI.5	Indirect Tax – GST	3	1. To know about how is GST beneficial for the country. 2. To understand what is the need of GST
5	UFMFSVI.7	Risk Management	4	1) Understand the various trading tools to hedge the risk. 2) To learn how to manage risk management strategies.
6	UFMFSVI.8	Project Work	4	

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LEARNING OUTCOMES

SELF-FINANCED COURSES

DEPARTMENT OF BCAF

1. Name of Department: BCAF
2. Title of Programme: BCAF
3. Programme outcome:
    - Acquaintance of broader aspects of Accounting, Taxation and other areas of Business and Economy.
4. Programme specific outcome:
    - This programme serves the base for learners doing further studies specifically CA, ICWA.
    - Provides employability in the various fields of Accounting and Financial Management.
    - Develops the analytical skills of learners in understanding various financial aspects so that they can apply practically in the course of employment.
5. Course outcome (separate for each course):

FYBAF SEM 1

Course code	Title of the course	Course credit	Course outcome
UA_FFSI.1	Financial Accounting (Elements of Financial Accounting) I	03	Helps in basic concepts of accounts, accounting standards, basics of hire purchase.
UA_FFSI.2	Cost Accounting (Introduction and Element of Cost) I	03	Basic understanding of costs, types of costs, materials, labour and overheads.
UA_FFSI.3	Financial Management (Introduction to Financial Management) I	03	Helps in making investment decisions and raising of funds after considering cost and benefits
UA_FFSI.4	Business Communication I	03	Works towards development of the student with aspects like written correspondence, learning to overcome barriers in communication, listening skills and oral communication, presentation skills, building of confidence, public speaking.
UA_FFSI.5.1	Foundation Course I	02	This course is introduced with the purpose of imparting the importance of values and culture for the development and sustainability of a nation.
UA_FFSI.6	Commerce (Business Environment) I	03	Helps in understanding various aspects associated with business and in starting new venture

UA_FFSI.7	Business Economics I	03	Provides basic concepts of micro economics helps to develop analytical skills useful for students of commerce. It provides insight on production ,demand and cost concepts and behaviours

FYBAF SEM II

Course code	Title of the course	Course credit	Course outcome
UA_FFSII.1	Financial Accounting (Special Accounting Areas) II	03	To give overview of specific accounting of branch, consignment, fire insurance and double entry.
UA_FFSII.2	Auditing (Introduction and Planning) I	03	Provides knowledge of basics in verifying the books of accounts and duties of auditor in the instances of various types of errors and frauds.
UA_FFSII.3	Innovative Financial Services	03	Helps in gaining insights of different financial services that have remained in dim light in the minds of upcoming generation
UA_FFSII.4	Business Communication II	03	This course is more practical based focussing on overall personality development of the student with oral communication, presentation skills, building of confidence, interview skills, and group discussions public speaking.
UA_FFSII.5.1	Foundation Course II	02	The course focuses on making student aware of aspects in practical life regarding Human rights, management of stress , conflicts and impact of globalisation ,privatisation and liberalisation
UA_FFSII.6	Business Law (Business Regulatory Framework) I	03	Educates the learner towards the basic laws of the land pertaining to their practical application in the field of commerce. The course is intended to impart basics of Contract Act, Sale Of Goods Act, and Negotiable Instruments Act And Consumer Protection Act, required for a commerce student.
UA_FFSII.7	Business Mathematics	03	The course helps the student develop mathematical skills relating to calculation of ratio and proportion, interest and annuity, shares and mutual funds valuation and also calculation of profit and loss of business.

SYBAF SEM III

Course code	Title of the course	Course credit	Course outcome
UA_FFSIII.1	Financial Accounting (Special Accounting Areas) III	03	It covers basics of partnership accounts, amalgamation and conversion of firms, foreign currency transaction.
UA_FFSIII.2	Cost Accounting	03	It covers methods of cost, cost classification,

	(Methods of Costing) II		cost sheet, contract costing, and process costing.
UA_FFSIII.4	Taxation II (Direct Taxes Paper I)	03	It covers direct tax, detailed knowledge of heads of income, deductions, GTI
UA_FFSIII.6	Information Technology in Accountancy I	03	Provides understanding of various emerging tools and technologies and ease provided to business due to introduction of electronic techniques.
UA_FFSIII.7.1	Foundation Course in Commerce (Financial Market Operations) - III	02	The course focuses on the various aspects of financial system and its importance in the development of an economy. It covers aspects regarding all the components of a financial system, as well as the contemporary aspects of the financial markets.
UA_FFSIII.8	Business Law (Business Regulatory Framework) II	03	The course is intended to impart basics of Partnership Act, LLP Act and Factories Act required for a commerce student. Educates the learner towards the basic laws of the land pertaining to their practical application in the field of commerce.
UA_FFSIII.9	Business Economics II	03	Helps in making economic analysis by providing in-depth knowledge of various aspects of economy like National Income, Demand and Supply, Trade Cycles, Union Budget and more

SYBAF SEM IV

Course code	Title of the course	Course credit	Course outcome
UA_FFSIV.1	Financial Accounting (Special Accounting Areas) IV	03	This gives detailed knowledge related to company accounts, final account of company, redemption, shares, debentures, branches.
UA_FFSIV.2	Management Accounting (Introduction to Management Accounting)	03	Introduces the aspects required by managers in the field of accounts for presentation, tabulation, interpretation and analysis of data for decision making with the help of various tools like, Cash flow analysis, Working capital requirements and Ratio analysis.
UA_FFSIV.4	Taxation III (Direct Taxes II)	03	It covers provisions of TDS, Clubbing, taxation of firm, DTAA
UA_FFSIV.6	Information Technology in Accountancy II	03	Provides understanding of various emerging tools and technologies and ease provided to business due to introduction of electronic techniques.
UA_FFSIV.7.1	Foundation Course in Commerce (Introduction to Management) - IV	02	Provides a deeper outlook of various functions of managing the big sized organisations.

UA_FFSIV.8	Business Law (Company Law) III	03	The course is intended to impart basics of Company's Act 2013 with the objective of helping the learner to know the practical application of the laws in the field of commerce.
UA_FFSIV.9	Research Methodology in Accounting and Finance	03	Provides a base of conducting the research and things to be considered before starting actual research.

TYBAF SEM V

Course code	Title of the course	Course credit	Course outcome
44801	Financial Accounting -V	03	This subject gives an understanding of underwriting of shares debentures, liquidation, internal reconstruction, buy back.
44802	Financial Accounting - VI	03	It covers specific accounting special accounting for banking, insurance company, non banking financial cos, LLP
44803	Cost Accounting III	03	Detailed knowledge of methods of costing, operating costing, Uniform costing, process cost, integrated and non integrated system
44804	Financial Management II	03	Provides knowledge of managing the credit sales in company, planning the capital structure and techniques of selecting the best project for investment.
44806	Taxation IV (Indirect Taxes II)	04	Understanding of basic concepts of GST, Levy, calculation, registration
44809	Management II (Management Applications)	04	The course is intended to impart skills with a view to help practical applications of the managerial functions and theories professed by various management experts. the course covers Production management, Promotion Management, Financial Management and Human Recourse Management.

TYBAF SEM VI

Course code	Title of the course	Course credit	Course outcome
85601	Financial Accounting - VII	03	Special accounting for electricity cos, mutual fund, cooperative society, investment accounting.
85602	Cost Accounting IV	03	Cost techniques, budgetary, marginal, standard costing, decision making
85603	Financial Management III	03	Helps in making decisions of dividend policy, analysis of mutual funds and aspects on foreign exchange management.
85604	Taxation V (Indirect Taxes III)	03	GST and customs act are covered. GST payment, returns, FTP
85607	Economics Paper III (Indian Economy)	04	The course imparts knowledge regarding the current scenario of the country in terms of sectors contributing to development and the policies

			developed by the government for the same. It also studies the role of India in various international organisations.
UA_FFSVI.8	Project Work II	04	Project is of 100 marks. To give a experience of research or internship. Project can be based on research or internship.

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LEARNING OUTCOMES

SELF-FINANCED COURSES

DEPARTMENT OF BMM

Course outcome (separate for each course)

Serial No.	Course Code	Title of the Course	Course Credit	Course Outcome
1	UABMM101	Effective Communication skills-1		The students will be equipped to understand the techniques of summarizing Editing, coherence, etc which will help them to commutate in a better way.
2	UABMM102	Fundamental of mass communication		Sensitivity towards the understanding of tools of mass communication and using them in the best possible way to bring the progress.
3	UABMM103	Introduction to Computers		The student will acquire knowledge of learning of basics of Microsoft office and other related software which will enhance their knowledge.
4	UABMM104	Landmarks of 20^{th} Century world History		The student will learn the major land mark in history that will shape the understanding of historical events ahead.
5	UABMM105	Introduction to Economics		The students will get chance to know about micro and macro economics and the demand supply and other concepts effect the economy.
6	UABMM106	Introduction to Sociology		The learners will develop an aptitude towards the understanding of the working of the society and move towards its betterment eliminating the vices.
7	UABMM201	Effective Communication skills-II		The learners will learn the formal communication required to be done at the

				places of work in the field of marketing, etc. It will help them to attain fluency in the written communication.
8	UABMM202	Introduction to English Literature		The students will be introduced the device of language carried by poetry, short story, drama and novels from across the globe.
9	UABMM203	Introduction to Media Psychology		The students will learn the basic concepts of psychology with reference to the media and its impact which will help them do better in understanding advertising and journalist assignments.
10	UABMM204	Political Concepts and The Indian Political system	The course will bring the knowledge to the students about various forms Of government. They will acquire the knowledge of democracy and Indian constitution.	
11	UABMM205	Principle of Marketing		It will be an understanding in the students about various marketing tools and ways of campaigning for a product or services in order to achieve high effectiveness
12	UABMM206	Principle of Management		Management is an art and is required in every field today, this course will enhance the knowledge of various strategies of managing and handling.

Serial No.	Course Code	Title of the Course	Course Credit	Course Outcome
1.	UABMM301	Introduction to Creative writing		Creative writing helps students to hone their writing skills and improve their vocabulary. The subject also helps them to learn different literary terms to form their own short stories and poems. It helps in getting proper knowledge about genres, characterization, plot, editing, etc.
2.	UABMM302	Introduction to Cultural Studies		In cultural studies, students learn about different elements that form a culture and its ways of propagation in the society. It also enables the study of approaching people to promote the product keeping their cultural

				background in mind.
3.	UABMM303	Introduction to Public Relation		It helps to understand the importance of relationship between the consumer and the brand. The subject provides knowledge about forms of PR and their agencies. Also, it helps to improve the relations by understanding corporate social responsibility.
4.	UABMM304	Introduction to Media Studies		The subject contains various theories that help us to understand the media and how it works. Advertising through different mediums and to choose proper platform for the promotion of the brand is also a part of the subject. The knowledge of media terms such as PPC, buying and bidding of slots, etc are also provided in the subject.
5.	UABMM305	Understanding Cinema		In understanding cinema the student gets to learn about the history and evolution of cinema in India and the world. Types of films, their formats and how they are made is taught in the subject. It gives knowledge about what goes into production and various factors that help in shooting and releasing a film.
6.	UABMM306	Advanced Computers		The subject contains computer coding languages such as HTML and CSS which help in formation of a website. 2d animation is also taught with the help of Adobe Flash software. It gives knowledge about types of online marketing and various Internet terms.
7.	UABMM401	Introduction to Advertising		The subject provides knowledge of how to advertise and promote a brand to increase the sales. It makes the students to understand various factors that help advertising through different platforms and channels. Advertising agencies and the Authoritative bodies that protect and censor an advertisement are also given in the subject.
8.	UABMM402	Introduction to Journalism		The subject includes evolution of printing press. The student learns about reporting, editing and how to write an article. It also gives knowledge about qualities of a modern journalist.
9.	UABMM403	Print production & Photography		The subject gives knowledge about the process and types of printing. The color modes and factors to keep in mind to

				produce a perfect print are also given in the subject. Photography contains knowledge about lenses, camera and its angles and rules to follow to click perfect picture.
10.	UABMM404	Radio & Television		The subject includes how to write scripts for radio and television. How recording takes place in a studio and the editing of the radio show. Also, it helps to get the knowledge about organizations that broadcast TV and radio shows
11.	UABMM405	Mass Media Research		It helps students to conduct various surveys and research about the target audience. Also, it helps to study the various steps involved in conducting research to get the accurate result that help in advertising and brand promotions.
12.	UABMM406	Organizational Behavior		The subject focuses on how the attributes and behavior of individuals and groups influence the culture, design, ethics, learning and structure of an organization. It helps to understand decision making process, leadership, motivation within a team environment.

Serial No.	Course Code	Title of the Course	Course Credit	Course Outcome
1.	27301	Advertising in contemporary Society		Students will be taught Ethics and rules that are to be followed while creating and publishing an advertisement in Indian market and Global market. Importance and functioning of different voluntary and non-voluntary organization like AAAI and ASCI and its importance will be taught.
2.	UBMMA505	Advertising Design		Designing of different mediums of advertisements, right and ethical way of creating advertisements will be taught. How to create influential advertisements that appeal people and create a impact on their

				minds is taught.
3.	27309	Media planning and Buying		A mix of different components and factors that are essential while planning and buying of media (modes of advertisements) and how to increase your reach to a larger target audience in a limited budget will be taught.
4.	27303	Copywriting		Students will be taught how to write a copy for the purpose of publicity or promotion for an advertisement. Vocabulary, Skills and word carpentry essential for making a good copy will be taught with the help of various activities.
5.	27307	Consumer Behavior		The students will learn about buying behaviour of an individual and groups as well, concepts related to emotional and cultural behaviours and how they influence the society and their behaviours are made clear.
6.	27306	Brand Building		Various important factors that create, impact and influence a brand and activities that take place while building a brand/company, how does it deal with its internal public and its external public by being ethical in every aspect will be taught.
7.	55601	Advertising and Marketing Research		
8.	55611	Contemporary issues		
9.	55605	Financial Management for marketing & Advertising		
10.	55609	The Principles & practice of Direct Marketing		
11.	55603	Legal environment &		

		Advertising ethics		
12.	55607	Agency Management		
13.	55613	Digital Media		

Serial No.	Course Code	Title of the Course	Course Credit	Course Outcome
1.		Indian regional Journalism		History of Indian media and how it developed, Roots and pioneers of Indian Regional newspapers other than English newspapers will be discussed and students will be taught is detail about the current situation of Indian Regional media and its influence over people and how has it developed over the years.
2.		Journalism and Public Opinion		Impacts of news i.e. journalism on people and different ways in which it influences opinions of an individual or society as a whole and different ways to analyze the impact of the media and public opinion on socio political issues will be taught to students
3.		Features and Opinion		The students will understand the differences between reporting and feature writing. They will also learn various skills necessary for interviewing, writing features, opinion and other soft stories.
4.		Reporting		Students will be taught about reporting, its types and importance. Ethics and Fundamentals of reporting will also be taught with respect to various situation that a journalist has to face.
5.		Newspaper and Magazine Making		Students will get familiar to various important aspects like the design, elements of the newspaper & magazine and space distribution while designing it using different

				software. The process of planning and production of newspaper and magazine will be explained to students with practical activities.
6.		Editing		Importance of Editing, different ways and formats to edit and its usage in modern times will be explained with different activities and projects.
7.		Broadcast Journalism		Students will be explained the importance of regional journalism, the skills and techniques to investigate news stories and use of camera and sound in broadcast format.
8.		Business and Magazine Journalism		tools of business journalism and an overview of the economy will be explained in detail, Different types of magazines and its importance from journalism point will be discussed.
9.		Internet and Issues in Global Media		Students will be taught about the impacts of the global media, its evolution and structure. The role of new media will be taught in detail.
10.		News Media Management		Students will be made aware about the responsibilities, structure and functioning of responsibilities of an organization, Students will have gained a perspective on the evolution of media in the last 25 years and on key current trends.
11.		Press Laws and Ethics		Students will be taught true ethics of Journalism, Laws made for journalism and why is it important to be ethical in this field.
12.		Contemporary Issues		Students will be made familiar to environmental, political, economic and social concerns and issues, they will be guided and explained about human rights and the

				problems, challenges and its implications on development.
13.		Digital Media		The importance of alternate to media, digitalized media and journalism will be made familiar to students, Challenges to international journalism with increase in digital technology will be discussed.

Smt. Chandibai Himathmal Mansukhani College, Ulhasnagar – 3

LEARNING OUTCOMES

SELF-FINANCED COURSES

DEPARTMENT OF BMS

1. *Name of Department:* Department of Management Studies
2. *Title of Programme:* BMS
3. *Programme Outcomes:*
    a) Enable learners to explore diverse careers in global management, governance and entrepreneurship
    b) Ability to lead themselves and others in the achievement of organizational goals, contributing effectively to a team environment.
    c) Be abreast of changing business environment and incorporate such changes in the organizational settings.
4. *Programme Specific Outcomes:*
    - Ability to apply knowledge of management functions and theories to solve business problems.
    - Ability to understand, analyze and communicate regional, national, global economic, legal, and ethical aspects of business.
    - Comprehend, Develop and Apply a broad range of managerial capabilities, the capacity for critical thinking, communication and problem- solving skills.

5. Course Outcomes:

Course Code	Title of the course	Course credit	Course outcome
First Year (Semester – I)			
UBMSFSI.1	Introduction to Financial Accounts	03	Be proficient in the financial accounting systems with specialized practical knowledge on preparing annual financial statement of a corporate body and all its facets and understanding of assets, liabilities, reconciliation, capital and revenue expenditure, depreciation and maintenance of various financial documents.
UBMSFSI.2	Business Law	03	Understand business situations from a legal perspective and apply knowledge of legal procedures related with routine business operations of an enterprise.
UBMSFSI.3	Business Statistics	03	Ability to design data collection plans, analyze data appropriately and interpret and draw conclusions from those analyses and thus employ and build a reliable platform for decision making
UBMSFSI.4	Business Communication – I	03	Have abreast knowledge of forms, Process and Principles of Communication that enable students to demonstrate the ability of evaluating, analyzing and interpreting information to make reasoned business

			decisions.
UBMSFSI.5	Foundation Course – I	02	Comprehend various dimensions of Indian society, knowledge regarding disparities, Philosophy of the constitution and significant aspects of political processes.
UBMSFSI.6	Foundation of Human Skills	03	Have self-knowledge and the ability to apply this knowledge to enhance effectiveness; understand and apply leadership skills, team- based knowledge, conflict management and negotiation skills required to achieve individual and institutional objectives.
UBMSFSI.7	Business Economics - I	03	Relate the basic economic theory and principles to current microeconomic issues and Use economic models to analyze a situation in terms of economics
First Year (Semester – II)			
UBMSFSII.1	Principles of Marketing	03	Ability to formulate general marketing strategy using 4Ps model and STP
UBMSFSII.2	Industrial Law	03	Understand business situations from a legal perspective and apply knowledge of legal procedures related with routine industrial operations of business.
UBMSFSII.3	Business Mathematics	03	Solve problems in the areas of financial and economics functions, derivatives, simple and compound interest, EMI calculations, annuity, trend line and time value of money.
UBMSFSII.4	Business Communication - II	03	Ability to apply business concepts of written communication in various related business issues
UBMSFSII.5	Foundation Course - II	02	Ability to comprehend the concept of LPG, growth and evolution of human rights, ecology and ability to understand causes and management of stress.
UBMSFSII.6	Business Environment	03	Ability to analyse the changes introduced in the components of environment of business and understanding their impact on the enterprise.
UBMSFSII.7	Principles of Management	03	Understand and apply the knowledge of management theories, functions and process in day to day business activities of an enterprise.
Second Year (Semester – III)			
UBMSFSIII.5	Accounting for Managerial Decisions	03	Ability to analyze the financial statements of an enterprise using vertical approach and various techniques like Comparative statements, common size, trend analysis, ratios, and other management accounting techniques of working capital management, cash flow statement and Receivables management.
UBMSFSIII.6	Strategic Management	03	Ability to analyse strategic micro and macro environmental issues, analyse industry factors and identify their impact on strategic positioning, evaluate SBU strategies and analyse and implement strategies at the business unit level.
UBMSFSIII.2	IT for Business -	03	Ability to use the MS office software and also email,

	I		internet, websites domains and security therein.
UBMSFSIII.4	Business Planning & Entrepreneurship Management	03	Ability to apply the knowledge of preparing project report and setting up of own business enterprise and thus exploring the opportunity of self-employment.
UBMSFSIII.3.01	Foundation Course – III (Environment Management)	02	Understand the impact of environmental issues and to apply the legal norms concerning environment into the business.
UBMSFSIII.1.01	Basics of Financial Service	03	Conceptualizing the framework of finance function and getting acquaint with the tools, types, instruments of financial system in the realm of Indian financial market.
UBMSFSIII.1.04	Corporate Finance	03	Conceptualizing the framework of finance function and getting acquaint with the tools and techniques and process of financial management in the realm of financial decision making.
UBMSFSIII.1.0	Advertising	03	Getting acquainted with the theories of advertising and latest tools for the construction of an effective advertisement and exploring opportunities of career in advertising.
UBMSFSIII.1.0	Consumer Behavior	03	Ability to understand the consumer decision making process and its applications in marketing function of firms, and analyzing consumer information for using it to create consumer-oriented marketing strategies.
Second Year (Semester – IV)			
UBMSFSIV.4	Research Methods	03	Demonstrate knowledge of research processes, perform literature reviews, compare and contrast quantitative and qualitative research paradigms, describe, compare, and contrast descriptive and inferential statistics, describe sampling methods, measurement scales and instruments, and appropriate uses of each and finally to conduct the research independently.
UBMSFSIV.5	Business Economics – II	03	Ability to understand the concepts of national income, calculate methods of national income, and concepts related to national income and interprets macroeconomic issues such as money, foreign exchange, inflation, unemployment, economic growth and foreign trade.
UBMSFSIV.6	Production and Total Quality Management	03	Getting acquainted with the basic management decisions with respect to production and quality management, and understand the designing aspects of production system
UBMSFSIV.2	IT for Business - II	03	Understand about emerging MIS technologies like ERP, CRM, SCM and trends in enterprise applications, Understanding relationship between database management and data warehouse approaches and to understand the concepts of Outsourcing as well as cloud computing.

UBMSFSIV.3.01	Foundation Course – IV (Ethics and Governance)	02	Be aware of the concepts and principles of ethical reasoning which have been developed in ethical theory, and to be able to apply these concepts and principles to specific ethical issues and ability to describe and analyze the primary parts of corporate governance frameworks
UBMSFSIV.1.01	Financial Institutions and Markets	03	Understanding basic knowledge about the structure, role and functioning of financial institutions and markets in the financial system.
UBMSFSIV.1.04	Corporate Restructuring	03	Getting acquainted with legal, accounting and practical implementation of corporate restructuring and understand the complex facets of corporate restructuring process.
UBMSFSIV.1.0	Integrated Marketing Communication	03	Ability to use the various tools of IMC to develop effective marketing communication programme.
UBMSFSIV.1.0	Rural Marketing	03	Ability to frame marketing strategies with 4Ps model and STP for the rural markets.
Third Year (Semester – V)			
46001	Logistics & Supply Chain Management	03	Understand fundamental logistics and supply chain management concepts, apply knowledge to evaluate and manage an effective supply chain, Understand the foundational role of logistics as it relates to transportation and warehousing and other functions of logistics.
46002	Corporate Communication and Public Relations	03	focus on the role of public relations in the organization and the application of communication strategies and tools for communications planning. And Be aware of and comply with law and regulations in the field of public relations, advertising, brand communication, marketing communication, persuasive communication, communication management, corporate communications.
46003	Investment Analysis and Portfolio Management	03	Apply understanding of different avenues of investments and learning to apply the decision for making portfolios with risk and returns profile of investors.
46009	Wealth Management	03	Understanding various aspects of wealth management including insurance planning, retirement planning, real estate management and taxation.
46018	Direct Tax	03	Ability to calculate taxable income of an individual and file the income tax returns independently.
46015	Risk Management	03	Understand the risks associated with finance in business and the ways to mitigate and manage the same by applying various risk management tool and techniques.
46010	Sales and Distribution	03	Getting acquainted with the concepts of market analysis and selling, managing distribution channels

	Management		and evaluation of marketing distribution channel performance.
46004	Service Marketing	03	Ability to plan and implement marketing strategies for service industries based on 7Ps model, Demand and capacity management and productivity issues in services.
46013	Customer Relationship Management	03	Getting acquainted with the CRM strategy and tools that reinforces relationship management strategy of an enterprise leading to customer satisfaction and delight.
46007	E-Commerce & Digital Marketing	03	Enables the learners to apply digital marketing tools to plan and implement ecommerce and digital marketing solutions of a business unit.
Third Year (Semester – VI)			
86001	Operations Research	03	Ability to derive optimum solutions in the area of operations using Linear programming (Graphical and Simplex methods), Transportation model, Assignment models, Game theory, Decision making and Networking with the use of CPM and PERT models.
UBMSFVI.5	Project Work	03	Ability to carry out the research project independently.
86002	International Finance	03	Ability to deal in foreign exchange markets through forex arithmetic and understand various dimensions of international finance like BOP, monetary systems, International equity markets, bond markets, Foreign capital, Tax havens, Risk management, Project appraisal,
86005	Innovative Financial Service	03	Have abreast knowledge of innovations in the BFS sector and applications of knowledge to start the financial services industry independently.
86008	Project Management	03	Ability to understand the project finance, its feasibility, environmental concerns, planning and controlling of projects, and application of capital budgeting tools to appraise the project proposals in terms of risk and returns associated with them.
86011	Strategic Financial Management	03	Ability to apply financial decision-making tools in order to achieve the strategic objectives of a business unit including dividend distribution models, working capital management and appraisal of investment proposals.
86009	International Marketing	03	Getting acquainted with the knowledge of marketing in the global world including areas like international branding, pricing, advertising, distribution and market entry strategies.
86003	Brand Management	03	Ability to plan and implement brand marketing programme, measuring and interpreting brand performance and growing brand equity.
860012	Media Planning	03	Getting familiar with the concepts of media mix and media strategy, media budgeting, buying and selling

			and media measurement and evaluation.
86006	Retail Man agreement	03	Understand the behavior of retails consumer, framing of retail strategy, merchandise management and pricing and managing and sustaining the retail business in the contemporary times.

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LEARNING OUTCOMES

SELF-FINANCED COURSES

DEPARTMENT OF BIOTECHNOLOGY

1. Name of Department: Biotechnology
2. Title of Programme: ~~B.A.~~ / B.Sc. / ~~B.Com. / B.M.M.~~ (Strike out which is not required)
3. Programme outcome:
   a) Learner should be able to communicate and converse with confidence not only on the subject of Biotechnology, but also on other matters of importance in the world around
   b) Learner should have developed clear understanding of moral values, etiquettes in behaviour with regard to his superiors, and be able to differentiate between the " right "and the "wrong" around him/her and have a rational mind to be able to pick the correct choice for his/her life ahead
   c) Learner should be competent enough to take small decisions and take appropriate action to be able to achieve specific goals.
   d) Overall personality of the learner should have developed well enough for him/her to make a positive impression on his peers and his superiors.
4. Programme specific outcome:

a) Learner should be strong in his/her basic concepts of biotechnology as a science both theoretically and practically.
b) Should be aware of the history of science, especially biology, which led to the advancement of the subject.
c) Learner should have developed an interest in the subject because of the exposure to subject related competitions, seminars, workshops and conferences
d) Learner should have a scientific aptitude and a spark to be able to conceive a promising career in science.

5. Course outcome (separate for each course):

Course code	Title of the course	Course credit	Course outcome
	SEMESTER-I		
USBT101	Basic Chemistry-I	2	**For Sem I and Sem II**
USBT102	Basic Chemistry-II	2	
USBT103	Basic Life Sciences-I : Biodiversity and Cell biology	2	Strengthen the basic concepts in each of the
USBT104	Basic Life Sciences-II : Microbial techniques	2	courses i.e. in chemistry, life sciences and
USBT105	Basic Biotechnology-I : Introduction to Biotechnology	2	Biotechnology (both theoretically and
USBT106	Basic Biotechnology-II : Molecular biology	2	practically)
USBT107	Societal Awareness	2	Also imbibe a social responsibility in them by
USBTP101,	Practical's of USBT101, USBT102,	6	the social topics covered in

USBTP102, USBTP103	USBT103, USBT104, USBT105 and USBT106		the societal awareness course
	SEMESTER-II		
USBT201	Chemistry-I : Bioorganic Chemistry	2	
USBT202	Chemistry-II : Physical Chemistry	2	
USBT203	Life Sciences-I : Physiology and Ecology	2	
USBT204	Life Sciences-II : Genetics	2	
USBT205	Biotechnology-I : Tissue Culture & Scientific Writing and Communication Skills	2	
USBT206	Biotechnology-II : Enzymology, Immunology, and Biostatistics Societal Awareness	2	
USBT207	Globalization, Ecology, and Sustainable Development	2	
USBTP201, USBTP202, USBTP203	Practicals of USBT201, USBT202, USBT203, USBT204, USBT205 and USBT206	6	
	SEMESTER-III		**For Sem III and Sem IV**
USBT301	Biophysics	2	Introduce students to the concepts of Cell biology and cytogenetics as well as research methodology, thus imparting the concept of basic research methodology and introducing the fundamentals of research In sem IV, the fundamentals of Biostatistics and Bioinformatics is introduced. In addition the students are required to understand the concept of entrepreneurship, thus setting the platform for future entrepreneurs Sem V: Advanced knowledge on medical microbiology and cell biology makes students
USBT302	Applied Chemistry-I	2	
USBT303	Immunology	2	
USBT304	Cell Biology and Cytogenetics	2	
USBT305	Molecular Biology	2	
USBT306	Bioprocess Technology	2	
USBT307	Research Methodology	2	
USBTP301	Practicals of USBT_301 and USBT_302	2	
USBTP302	Practicals of USBT_303 and USBT_304	2	
USBTP303	Practicals of USBT_305 and USBT_306	2	
	SEMESTER-IV		
USBT401	Biochemistry	2	
USBT402	Applied Chemistry-II	2	
USBT403	Medical Microbiology	2	
USBT404	Environmental Biotechnology	2	
USBT405	Biostatistics and Bioinformatics	2	
USBT406	Molecular Diagnostics	2	
USBT407	Entrepreneurship Development	2	
USBTP401	Practicals of USBT_401 and USBT_402	2	

USBTP402	Practicals of USBT_403 and USBT_404	2	understand the depth of these subjects.
USBTP403	Practicals of USBT_405 and USBT_406	2	Instrumentation, genomics and mol. Biological concepts makes them understand the applications of the subject
	SEMESTER-V		
USBT501	Cell Biology	2.5	
USBT502	Medical Microbiology and Instrumentation	2.5	Sem IV: Students are exposed to advanced topics
USBT503	Genomes and Molecular Biology	2.5	like neurochemistry and
USBT504	Marine Biotechnology	2.5	pharmacology.
USBTP501+502	Cell Biology + Medical Microbiology and Instrumentation	3.0	Topics of industrial microbiology enables the students to understand the
USBTP503+504	Genomes and Molecular Biology + Marine Biotechnology	3.0	actual working in industry.
Applied Component(T)	Biosafety	2.0	Marine biotechnology and agricultural biotech gives
Applied Component(p)	Biosafety	2.0	them a view of applications and vast scope of biotechnology.
	SEMESTER-VI		A live project done individually by students
USBT601	Biochemistry	2.5	exposes them to basics of
USBT602	Industrial Microbiology	2.5	how to define a research
USBT603	Pharmacology and Neurochemistry	2.5	problem, do literature
USBT604	Environmental Biology	2.5	search, write a research
USBTP601+602	Biochemistry & Industrial Microbiology	3.0	proposal, design and plan experiments, execute
USBTP603+604	Pharmacology –Neurochemistry and Environmental Biology Biotechnology (50M) + Project Work (50M) Agribiotechnology	3.0	research projects, interpret and analyse results and draw conclusions based on which scientific discussions and deliberations can be
Applied Component(T)	Agribiotechnology	2.0	conducted . They also get trained to presents their
Applied Component(p)		2.0	research work in the form of a ppt as well as encouraged to publish their work in the form of posters or papers.

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LEARNING OUTCOMES

SELF-FINANCED COURSES

DEPARTMENT OF COMPUTER SCIENCE

1. Name of Department: Computer Science
2. Title of Programme: ~~B.A.~~ / B.Sc. / ~~B.Com.~~ / ~~B.M.M.~~ (Strike out which is not required)
3. Programme outcome:
    a. The Bachelor of Science in Computer Science program focuses on the concepts and techniques used in the design and development of advanced software systems.
    b. It also emphasizes on good communication skills to develop written and oral techniques to deal with various issues arising in day-to-day life of practical world.
    c. Laying strong foundation to make students competent and complete software professionals to meet the requirement of corporate world and industry standard to provide solution for software industry, society and business.
4. Programme specific outcome:
    d. Students in this program explore the conceptual underpinnings of Computer Science - its fundamental algorithms, programming languages, Operating Systems, System software, Application Software, Data Communication and Networking concepts, Database Management System concepts, FOSS, Web Development tools and Software Engineering techniques as well as Project Development.
    e. To acquaint students with the contemporary trends in industrial/research settings and thereby developing spirit of coming out with innovative novel solutions to existing/potential problems.
    f. On completion of the B.Sc.(Computer Science) degree the graduates will be able to design and develop computer programs , algorithms, networking , web design , work on IoT and data analytics of varying complexity.
5. Course outcome (separate for each course):

Course code	Title of the course	Course credit	Course outcome
USCS101	Computer Organization and Design	02	1) To learn about how computer systems work and underlying principles 2) To understand the basics of digital electronics needed for computers 3) To understand the basics of instruction set architecture for reduced and complex instruction sets 4) To understand the basics of processor structure and operation 5) To understand how data is transferred between the processor and I/O devices
USCS102	Programming with Python- I	02	1) Students should be able to understand the concepts of programming before actually

Course code	Title of the course	Course credit	Course outcome
			starting to write programs. 2) Students should be able to develop logic for Problem Solving. 3) Students should be made familiar about the basic constructs of programming such as data, operations, conditions, loops, functions etc. 4) Students should be able to apply the problem solving skills using syntactically simple language i.e. Python (version: 3.X or higher)
USCS103	Free and Open-source Software	02	1) Upon completion of this course, students should have a good working knowledge of Open Source ecosystem, its use, impact and importance. 2) This course shall help student to learn Open Source methodologies, case studies with real life examples.
USCS104	Database Systems	02	1) Students should be able to evaluate business information problem and find the requirements of a problem in terms of data. 2) Students should be able to design the database schema with the use of appropriate data types for storage of data in database. 3) Students should be able to create, manipulate, query and back up the databases.
USCS105	Discrete Mathematics	02	1) To provide overview of theory of discrete objects, starting with relations and partially ordered sets. 2) Study about recurrence relations, generating function and operations on them. 3) Give an understanding of graphs and trees, which are widely used in software. 4) Provide basic knowledge about models of automata theory and the corresponding formal languages.
USCS106	Descriptive Statistics and Introduction to Probability	02	1) Enable students to know descriptive statistical concepts 2) Enable study of probability concept required for Computer students
USCS107	Soft Skills Development	02	1) To know about various aspects of soft skills and learn ways to develop personality 2) Understand the importance and type of communication in personal and professional environment. 3) To provide insight into much needed technical and non-technical qualities in

Course code	Title of the course	Course credit	Course outcome
			career planning. 4) Learn about Leadership, team building, decision making and stress management
USCSP101	Practical of USCS101 + USCS102	02	This module is to complement and achieve the objectives and outcomes outlined in the course USCS101 and USCS102
USCSP102	Practical of USCS103 + USCS104	02	This module is to complement and achieve the objectives and outcomes outlined in the course USCS103 and USCS104
USCSP103	Practical of USCS105 + USCS106	02	This module is to complement and achieve the objectives and outcomes outlined in the course USCS105 and USCS106
USCS201	Programming with C	02	1) Students should be able to write, compile and debug programs in C language. 2) Students should be able to use different data types in a computer program. 3) Students should be able to design programs involving decision structures, loops and functions. 4) Students should be able to explain the difference between call by value and call by reference 5) Students should be able to understand the dynamics of memory by the use of pointers. 6) Students should be able to use different data structures and create/update basic data files.
USCS202	Programming with Python – II	02	1) Students should be able to understand how to read/write to files using python. 2) Students should be able to catch their own errors that happen during execution of programs. 3) Students should get an introduction to the concept of pattern matching. 4) Students should be made familiar with the concepts of GUI controls and designing GUI applications. 5) Students should be able to connect to the database to move the data to/from the application. 6) Students should know how to connect to computers, read from URL and send email.
USCS203	Linux	02	1) Upon completion of this course, students should have a good working knowledge of Linux, from both a graphical and command line perspective, allowing them to easily use any Linux distribution. 2) This course shall help student to learn advanced subjects in computer science

Course code	Title of the course	Course credit	Course outcome
			practically. 3) Student shall be able to progress as a Developer or Linux System Administrator using the acquired skill set.
USCS204	Data Structures	02	1) Learn about Data structures, its types and significance in computing 2) Explore about Abstract Data types and its implementation 3) Ability to program various applications using different data structure in Python
USCS205	Calculus	02	1) Understanding of Mathematical concepts like limit, continuity, derivative, integration of functions. 2) Ability to appreciate real world applications which uses these concepts. 3) Skill to formulate a problem through Mathematical modeling and simulation.
USCS206	Statistical Methods and Testing of Hypothesis	02	1) Enable students to know descriptive statistical concepts 2) Enable study of probability concept required for Computer students
USCS207	Green Technologies	02	1) Learn about green IT can be achieved in and by hardware, software, network communication and data center operations. 2) Understand the strategies, frameworks, processes and management of green IT
USCSP201	Practical of USCS201 + USCS202	02	This module is to complement and achieve the objectives and outcomes outlined in the course USCS201 and USCS202
USCSP202	Practical of USCS203 + USCS204	02	This module is to complement and achieve the objectives and outcomes outlined in the course USCS203 and USCS204
USCSP203	Practical of USCS205 + USCS206	02	This module is to complement and achieve the objectives and outcomes outlined in the course USCS205 and USCS206
USCS301	Theory of Computation	02	1) Understand Grammar and Languages 2) Learn about Automata theory and its application in Language Design 3) Learn about Turing Machines and Pushdown Automata 4) Understand Linear Bound Automata and its applications
USCS302	Core Java	02	1) Object oriented programming concepts using Java. 2) Knowledge of input, its processing and getting suitable output. 3) Understand, design, implement and evaluate classes and applets.

Course code	Title of the course	Course credit	Course outcome
			4) Knowledge and implementation of AWT package.
USCS303	Operating System	02	1) To provide a understanding of operating system, its structures and functioning 2) Develop and master understanding of algorithms used by operating systems for various purposes.
USCS304	Database Management Systems	02	1) Master concepts of stored procedure and triggers and its use. 2) Learn about using PL/SQL for data management 3) Understand concepts and implementations of transaction management and crash recovery
USCS305	Combinatorics and Graph Theory	02	1) Appreciate beauty of combinatorics and how combinatorial problems naturally arise in many settings. 2) Understand the combinatorial features in real world situations and Computer Science applications. 3) Apply combinatorial and graph theoretical concepts to understand Computer Science concepts and apply them to solve problems.
USCS306	Physical Computing and IoT Programming	02	1) Enable students to understand System On Chip Architectures. 2) Introduction and preparing Raspberry Pi with hardware and installation. 3) Learn physical interfaces and electronics of Raspberry Pi and program them using practical's 4) Learn how to make consumer grade IoT safe and secure with proper use of protocols.
USCS307	Web Programming	02	1) To design valid, well-formed, scalable, and meaningful pages using emerging technologies. 2) Understand the various platforms, devices, display resolutions, viewports, and browsers that render websites 3) To develop and implement client-side and server-side scripting language programs. 4) To develop and implement Database Driven Websites. 5) Design and apply XML to create a markup language for data and document centric applications.
USCSP301	USCS302+ USCS303+USCS	03	This module is to complement and achieve the objectives and outcomes outlined in the course

Course code	Title of the course	Course credit	Course outcome
	304		USCS302, USCS303 and USCS304.
USCSP302	USCS305+ USCS306+USCS 307	03	This module is to complement and achieve the objectives and outcomes outlined in the course USCS305, USCS306 and USCS307.
USCS401	Fundamentals of Algorithms	02	1) To understand basic principles of algorithm design and why algorithm analysis is important 2) To understand how to implement algorithms in Python 3) To understand how to transform new problems into algorithmic problems with efficient solutions 4) To understand algorithm design techniques for solving different problems.
USCS402	Advanced Java	02	1) Understand the concepts related to Java Technology 2) Explore and understand use of Java Server Programming
USCS403	Computer Networks	02	1) Student will be able to understand the concepts of networking, which are important for them to be known as a 'networking professionals'. 2) Useful to proceed with industrial requirements and International vendor certifications.
USCS404	Software Engineering	02	1) Basic knowledge and understanding of the analysis and design of complex systems. 2) Ability to apply software engineering principles and techniques. 3) Ability to develop, maintain and evaluate large-scale software systems. 4) To produce efficient, reliable, robust and cost-effective software solutions. 5) Ability to perform independent research and analysis. 6) To communicate and coordinate competently by listening, speaking, reading and writing English for technical and general purposes. 7) Ability to work as an effective member or leader of software engineering teams. 8) To manage time, processes and resources effectively by prioritizing competing demands to achieve personal and team goals Identify and analyzes the common threats in each domain.

Course code	Title of the course	Course credit	Course outcome
			9) Ability to understand and meet ethical standards and legal responsibilities.
USCS405	Linear Algebra using Python	02	1) Appreciate the relevance of linear algebra in the field of computer science. 2) Understand the concepts through program implementation 3) Instill a computational thinking while learning linear algebra.
USCS406	.Net Technologies	02	1) Understand the .NET framework 2) Develop a proficiency in the C# programming language 3) Proficiently develop ASP.NET web applications using C# 4) Use ADO.NET for data persistence in a web application
USCS407	Android Developer Fundamentals	02	1) Understand the requirements of Mobile programming environment. 2) Learn about basic methods, tools and techniques for developing Apps 3) Explore and practice App development on Android Platform 4) Develop working prototypes of working systems for various uses in daily lives.
USCSP401	USCS401+ USCS402+USCS 403	03	This module is to complement and achieve the objectives and outcomes outlined in the course USCS401, USCS402 and USCS403.
USCSP402	USCS405+ USCS406+ USCS407	03	This module is to complement and achieve the objectives and outcomes outlined in the course USCS405, USCS406 and USCS407.
USCS501	Artificial Intelligence	02	This course aims to introduce the student to the interesting areas: 1) Artificial Intelligence (AI) and accompanying tools and techniques bring transformational changes in the world. 2) Machines capability to match, and sometimes even surpass human capability, make AI a hot topic in Computer Science. 3) After completion of this course, student should get a clear understanding of AI and different search algorithms used for solving problems. 4) The student should also get acquainted with different learning algorithms and models used in machine learning.
USCS502	Linux Server Administration	02	1) Demonstrate proficiency with the Linux command line interface, directory and file

Course code	Title of the course	Course credit	Course outcome
			management techniques, file system organization, and tools commonly found on most Linux distributions. 2) Effectively operate a Linux system inside of a network environment to integrate with existing service solutions. 3) Demonstrate the ability to troubleshoot challenging technical problems typically encountered when operating and administering Linux systems. 4) Student will be able to develop Linux based systems and maintain. 5) Student will be able to install appropriate service on Linux server as per requirement. 6) Student will have proficiency in Linux server administration.
USCS504	Information and Network Security	02	1) To provide students with knowledge of basic concepts of computer security including network security and cryptography. 2) Understand the principles and practices of cryptographic techniques. 3) Understand a variety of generic security threats and vulnerabilities, and identify and analyze particular security problems for a given application. 4) Understand various protocols for network security to protect against the threats in a network
USCS505	Architecting of IoT	02	1) Discovering the interconnection and integration of the physical world. 2) Student should get knowledge of the architecture of IoT. 3) Students are able to design & develop IoT Devices. 4) They should also be aware of the evolving world of M2M Communications and IoT analytics.
USCS507	Game Programming	02	1) Student should get the understanding of computer Graphics Programming using DirectX or OpenGL. 2) Along with the VR and AR they should also be aware of GPU, newer technologies and programming using most important API for Windows. 3) Student should study Graphics and gamming concepts with present working style of developers where everything

Course code	Title of the course	Course credit	Course outcome
			remains on internet and they need to review it, understand it, be a part of community and learn.
USCSP501	Practicals of USCS501 + USCS502	02	This module is to complement and achieve the objectives and outcomes outlined in the course USCS501 and USCS502
USCSP502	Practicals of USCS504 + USCS505	02	This module is to complement and achieve the objectives and outcomes outlined in the course USCS504 and USCS505
USCSP503	Project Implementation	01	This course is the crux of the B.Sc.(Computer Science) program as it makes student realize importance of phase-wise work and deadlines to meet the challenges of real-life situation.
USCSP504	Practicals of USCS507	01	This module is to complement and achieve the objectives and outcomes outlined in the course USCS507
USCS601	Wireless Sensor Networks and Mobile Communication	03	1) In this era of wireless and adhoc network, connecting different wireless devices and understanding their compatibility is very important. 2) Information is gathered in many different ways from these devices. 3) Student should be able to conceptualize and understand the framework. 4) On completion, will be able to have a firm grip over this very important segment of wireless network. 5) After completion of this course, student should be able to list various applications of wireless sensor networks, describe the concepts, protocols, design, implementation and use of wireless sensor networks. 6) Also implement and evaluate new ideas for solving wireless sensor network design issues.
USCS603	Cyber Forensics	03	1) To understand the procedures for identification, preservation, and extraction of electronic evidence, auditing and investigation of network and host system intrusions, analysis and documentation of information gathered 2) The student will be able to plan and prepare for all stages of an investigation - detection, initial response and management interaction, investigate various media to collect evidence, report them in a way that would be acceptable in the court of law.
USCS605	Digital Image	03	1) To study two-dimensional Signals and

Course code	Title of the course	Course credit	Course outcome
	Processing		Systems. 2) To understand image fundamentals and transforms necessary for image processing. 3) To study the image enhancement techniques in spatial and frequency domain. 4) To study image segmentation and image compression techniques. 5) Student should review the fundamental concepts of a digital image processing system. 6) Analyse the images in the frequency domain using various transforms. 7) Evaluate the techniques for image enhancement and image segmentation. 8) Apply various compression techniques. 9) They will be familiar with basic image processing techniques for solving real problems.
USCS606	Data Science	03	1) Understanding basic data science concepts. 2) Learning to detect and diagnose common data issues, such as missing values, special values, outliers, inconsistencies, and localization. 3) Making aware of how to address advanced statistical situations, 4) Modeling and Machine Learning. 5) After completion of this course, the students should be able to understand & comprehend the problem; and should be able to define suitable statistical method to be adopted.
USCS607	Ethical Hacking	02	1) To understand the ethics, legality, methodologies and techniques of hacking. 2) Student will know to identify security vulnerabilities and weaknesses in the target applications. 3) They will also know to test and exploit systems using various tools and understand the impact of hacking in real time machines.
USCSP601	Practicals of USCS601 + USCS603	02	This module is to complement and achieve the objectives and outcomes outlined in the course USCS601 and USCS603
USCSP602	Practicals of USCS604 + USCS605	02	This module is to complement and achieve the objectives and outcomes outlined in the course USCS604 and USCS605
USCSP603	Project Implementation	01	This course is the crux of the B.Sc.(Computer Science) program as it makes student realize importance of phase-wise work and deadlines to

Course code	Title of the course	Course credit	Course outcome
			meet the challenges of real-life situation.
USCSP604	Practicals of USCS607	01	This module is to complement and achieve the objectives and outcomes outlined in the course USCS607

Smt. Chandibai Himathmal Mansukhani College, Ulhasnagar – 3

LEARNING OUTCOMES

SELF-FINANCED COURSES

DEPARTMENT OF IT

1. Name of Department: Information Technology
2. Title of Programme: ~~B.A.~~ / B.Sc. / ~~B.Com. / B.M.M.~~ (Strike out which is not required)
3. Programme outcome: Employable and impart industry oriented training.
4. Programme specific outcome:
    - Expertise to developing robust, extensible and highly maintainable technological solutions to simple and complex problems. This programme will enable them to think analytically, creatively and critically to develop such solutions.
    - Learners acquire knowledge and skills to be employed and excel in IT professional careers and/or to continue their education in IT and/or related post graduate programmes.
    - The programme will enable learners to be capable of managing complex IT projects with consideration of the human, financial and environmental factors.
    - Trained to work effectively as a part of a team to achieve a common stated goal.
5. Course outcome (separate for each course):

Course code	Title of the course	Course credit	Course outcome
USIT101, USIT1P2	Imperative Programming, Imperative Programming Practical	2 2	• Identify situations where computational methods and computers would be useful. • Given a computational problem, identify and abstract the programming task involved. • Approach the programming tasks using techniques learned and writepseudo-code. • Choose the right data representation formats based on the requirements of the problem. • Use the comparisons and limitations of the various programming constructs and choose the right one for the task in hand. • Write the program on a computer, edit, compile, debug, correct, recompile and run it. • Identify tasks in which the numerical techniques learned are applicable and apply them to write programs, and hence use computers effectively to solve the task.
USIT102, USIT1P2	Digital Electronics, Digital Electronics Practical	2 2	• Have a thorough understanding of the fundamental concepts and techniques used in digital electronics. • To understand and examine the structure of various number systems and its

			application in digital design. • The ability to understand, analyse and design various combinational and sequential circuits. • Ability to identify basic requirements for a design application and propose a cost effective solution. • The ability to identify and prevent various hazards and timing problems in a digital design. • To develop skill to build, and troubleshoot digital circuits.
USIT103, USIT1P3	Operating Systems, Operating Systems Practical	2 2	• Analyse the structure of OS and basic architectural components involved in OS design. • Analyse and design the applications to run in parallel either using process or thread models of different OS. • Analyse the various device and resource management techniques for timesharing and distributed systems. • Understand the Mutual exclusion, Deadlock detection and agreement protocols of Distributed operating system. • Interpret the mechanisms adopted for file sharing in distributed Applications • Conceptualize the components involved in designing a contemporary OS.
USIT104, USIT1P4	Discrete Mathematics, Discrete Mathematics Practical	2 2	• Creating arguments using logical notation and determine if the argument is or is not valid • Demonstrate the ability to write and evaluate a proof or outline the basic structure of and give examples of each proof technique described. • Understand the basic principles of sets and operations in sets. • Prove basic set equalities. • Apply counting principles to determine probabilities. • Demonstrate an understanding of relations and functions and be able to determine their properties. • Determine when a function is 1-1 and "onto". • Demonstrate different traversal methods for trees and graphs. • Model problems in Computer Science using graphs and trees.
USIT105, USIT1P5	Communication Skills, Communication Skills Practical	2 2	• Students will be able to understand and apply knowledge of human communication and language processes as they occur across various contexts, e.g., interpersonal, intrapersonal, small group, organizational, media, gender, family, intercultural communication, technologically mediated communication, etc. from multiple perspectives. • Students will be able to understand and evaluate key

			theoretical approaches used in the interdisciplinary field of communication. I.e., students will be able to explain major theoretical frameworks, constructs, and concepts for the study of communication and language, summarize the work of central thinkers associated with particular approaches, and begin to evaluate the strengths and weaknesses of their approaches. • Students will be able to understand the research methods associated with the study of human communication, and apply at least one of those approaches to the analysis and evaluation of human communication. • Students will be able to find, use, and evaluate primary academic writing associated with the communication discipline. • Students will develop knowledge, skills, and judgment around human communication that facilitate their ability to work collaboratively with others. Such skills could include communication competencies such as managing conflict, understanding small group processes, active listening, appropriate self-disclosure, etc. • Students will be able to communicate effectively orally and in writing.
USIT201, USIT2P1	Object Oriented Programming, Object Oriented Programming Practical	2 2	• Able to understand the basics of OOP and Object oriented approach to design software. • Able to design and Implement programs using classes and objects, operator overloading. • Able to specify the types of inheritance and use them in programs. • Able to analyse polymorphic behaviour of objects, details of friend function and virtual base class. • Able to understand the command line argument and file related operations. • Able to understand the class template, function template and template libraries.
USIT202, USIT2P2	Microprocessor Architecture, Microprocessor Architecture Practical	2 2	• Write programs to run on 8086 microprocessor based systems. • Design system using memory chips and peripheral chips for 16 bit 8086 microprocessor. • Understand and devise techniques for faster execution of instructions, improve speed of operations and enhance performance of microprocessors. • Distinguish between RISC and CISC processors. • Understand multi core processor and its advantages.
USIT203, USIT2P3	Web Programming, Web Programming	2 2	• Implement interactive web page(s) using HTML, CSS and JavaScript. • Design a responsive web site using HTML5 and CSS3. • Demonstrate Rich Internet Application.

	Practical		• Build Dynamic web site using server side PHP Programming and Database connectivity. • Describe and differentiate different Web Extensions and Web Services. • Demonstrate web application using Python web Framework-Django.
USIT204, USIT2P4	Numerical and Statistical Methods, Numerical and Statistical Methods Practical	2 2	• Recognize the error in the number generated by the solution. • Compute solution of algebraic and transcendental equation by numerical methods like Bisection method and Newton Rapshon method. • Apply method of interpolation and extrapolation for prediction. • Recognize elements and variable in statistics and summarize qualitative and quantitative data. • Calculate mean, median and mode for individual series. • Outline properties of correlation and compute Karl-Pearson's coefficient of correlation.
USIT205, USIT2P5	Green Computing, Green Computing Practical	2 2	• The student shall give an account of the concept green IT. • One shall give an account of environmental perspectives on IT use. • One shall give an account of standards and certifications related to sustainable IT products. • One shall describe green IT in relation to technology. • One shall relate green IT to sustainable development. • One shall evaluate IT use in relation to environmental perspectives. • One shall discuss how the choice of hardware and software can facilitate a more sustainable operation. • One shall use methods and tools to measure energy consumption. • Describe awareness among stakeholders and promote green agenda and green initiatives in their working environments leading to green movement. • Identify IT Infrastructure Management and Green Data Centre Metrics for software. • Recognize Objectives of Green Network Protocols for Data communication. • Use Green IT Strategies and metrics for ICT development. • Illustrate various green IT services and its roles. • Use new career opportunities available in IT profession, audits and others with special skills such as energy efficiency, ethical IT assets disposal, carbon footprint estimation, reporting and development of green products, applications and services.

USIT301, USIT3P1	Python Programming, Python Programming Practical	2 2	• Describe the Numbers, Math functions, Strings, List, Tuples and Dictionaries in Python. • Express different Decision Making statements and Functions. • Interpret Object oriented programming in Python. • Understand and summarize different File handling operations. • Explain how to design GUI Applications in Python and evaluate different database operations. • Design and develop Client Server network applications using Python.
USIT302, USIT3P2	Data Structures, Data Structures Practical	2 2	• Ability to analyse algorithms and algorithm correctness. • Ability to summarize searching and sorting techniques. • Ability to describe stack, queue and linked list operation. • Ability to have knowledge of tree and graphs concepts.
USIT303, USIT3P3	Computer Networks, Computer Networks Practical	2 2	• Independently understand basic computer network technology. • Understand and explain Data Communications System and its components. • Identify the different types of network topologies and protocols. • Enumerate the layers of the OSI model and TCP/IP. Explain the function(s) of each layer. • Identify the different types of network devices and their functions within a network. • Understand and building the skills of sub netting and routing mechanisms. • Familiarity with the basic protocols of computer networks, and how they can be used to assist in network design and implementation.
USIT304, USIT3P4	Database Management Systems, Database Management Systems Practical	2 2	• Describe the fundamental elements of relational database management systems. • Explain the basic concepts of relational data model, entity-relationship model, relational database design, relational algebra and SQL. • Design ER-models to represent simple database application scenarios. • Convert the ER-model to relational tables, populate relational database and formulate SQL queries on data. • Improve the database design by normalization Familiar with basic database storage structures and access techniques: file and page organizations, indexing methods including B tree, and hashing.
USIT305	Applied Mathematics	2	• To apply the knowledge of matrices to solve the problems. • To know and to understand various types of numerical methods.

			• Ability to interpret the mathematical results in physical or practical terms for complex numbers. • Inculcate the Habit of Mathematical Thinking through Indeterminate forms and Taylor series expansion. • Solve and analyse the Partial derivatives and its application in related field of engineering.
USIT3P5	Mobile Programming Practical	2	• Mobile Application Development.
USIT401, USIT4P1	Core Java, Core Java Practical	2 2	• Knowledge of the structure and model of the Java programming language. • Use the Java programming language for various programming technologies. • Develop software in the Java programming language. • Evaluate user requirements for software functionality required to decide whether the Java programming language can meet user requirements. • Propose the use of certain technologies by implementing them in the Java programming language to solve the given problem. • Choose an engineering approach to solving problems, starting from the acquired knowledge of programming and knowledge of operating systems.
USIT402, USIT4P2	Introduction to Embedded Systems, Introduction to Embedded Systems Practical	2 2	• Understand what is a microcontroller, microcomputer, embedded system. • Understand different components of a micro-controller and their interactions. • Foster ability to understand the internal architecture and interfacing of different peripheral devices with Microcontrollers. • Foster ability to write the programs for microcontroller. • Foster ability to understand the role of embedded systems in industry. • Foster ability to understand the design concept of embedded systems. • Become familiar with programming environment used to develop embedded systems. • Understand key concepts of embedded systems like IO, timers, interrupts, interaction with peripheral devices. • Learn debugging techniques for an embedded system.
USIT403, USIT4P3	Computer Oriented Statistical Techniques, Computer Oriented Statistical Techniques Practical	2 2	• Recognize the error in the number generated by the solution. • Compute solution of algebraic and transcendental equation by numerical methods like Bisection method and Newton Raphson method. • Apply method of interpolation and extrapolation for prediction. • Recognize elements and variable in statistics and

			summarize qualitative and quantitative data. • Calculate mean, median and mode for individual series. • Outline properties of correlation and compute Karl-Pearson's coefficient of correlation.
USIT404, USIT4P4	Software Engineering, Software Engineering Practical	2 2	• How to apply the software engineering lifecycle by demonstrating competence in communication, planning, analysis, design, construction, and deployment. • An ability to work in one or more significant application domains. • Work as an individual and as part of a multidisciplinary team to develop and deliver quality software. • Demonstrate an understanding of and apply current theories, models, and techniques that provide a basis for the software lifecycle. • Demonstrate an ability to use the techniques and tools necessary for engineering practice. • An ability to identify, formulate, and solve complex engineering problems by applying principles of engineering, science, and mathematics. • An ability to apply engineering design to produce solutions that meet specified needs with consideration of public health, safety, and welfare, as well as global, cultural, social, environmental, and economic factors. • An ability to communicate effectively with a range of audiences. • An ability to recognize ethical and professional responsibilities in engineering situations and make informed judgments, which must consider the impact of engineering solutions in global, economic, environmental, and societal contexts. • An ability to function effectively on a team whose members together provide leadership, create a collaborative and inclusive environment, establish goals, plan tasks, and meet objectives. • An ability to develop and conduct appropriate experimentation, analyze and interpret data, and use engineering judgment to draw conclusions. • An ability to acquire and apply new knowledge as needed, using appropriate learning strategies. • An ability to use the techniques, skills, and modern engineering tools and processes necessary for software engineering practice. • An ability to apply software engineering perspective through software design and construction, requirements analysis, verification, and validation, to develop solutions to modern problems such as security, data science, and systems engineering.

USIT405, USIT4P5	Computer Graphics and Animation, Computer Graphics and Animation Practical	2 2	• To list the basic concepts used in computer graphics. • To implement various algorithms to scan, convert the basic geometrical primitives, transformations, Area filling, clipping. • To describe the importance of viewing and projections. • To define the fundamentals of animation, virtual reality and its related technologies. • To understand a typical graphics pipeline. • To design an application with the principles of virtual reality.
USIT501, USIT5P1	Software Project Management, Project Dissertation	2 2	• Identify the different project contexts and suggest an appropriate management strategy. • Practice the role of professional ethics in successful software development. • Identify and describe the key phases of project management. • Determine an appropriate project management approach through an evaluation of the business context and scope of the project.
USIT502 USIT5P2	Internet of Things Practical	2 2	• Interpret the vision of IoT from a global context. Determine the Market perspective of IoT. • Compare and Contrast the use of Devices, Gateways and Data Management in IoT. • Implement state of the art architecture in IoT. • Illustrate the application of IoT in Industrial Automation and identify Real World Design Constraints.
USIT503 USIT5P3	Advanced Web Programming Practical	2 2	• Design, develop and host a user friendly website. • Know the usage of APIs. • Layout management in line with current trend. • Understand the major areas and challenges of web programming. • Distinguish web-related technologies. • Use advanced topics in HTML5, CSS3, JavaScript. • Use a server-side scripting language, PHP. • Use a relational DBMS, MySQL. • Use PHP to access a MySQL database. • Design and implement typical static web pages and interactive web applications, dynamic web applications, web applications that use asynchronous communication, secure 3-tier data-driven web applications.
USIT505 USIT5P5	Linux System Administration Practical	2 2	• Demonstrate knowledge of the role and responsibilities of a Unix system administrator. • Install and configure the Linux operating system. • Manage the resources and security of a computer running Linux at a basic level. • Make effective use of Unix utilities, and scripting

			languages. • Configure and manage simple TCP/IP network services on a Linux system.
USIT506 USIT5P6	Enterprise Java practical	2 2	• Understand OOPs concepts, Java programming constructs and JVM and byte codes. • Able to write Simple java programs using Classes, Inheritance, Exception handling and applets. • Develop programs using thread concepts and swings • Develop simple Java applications with JDBC connectivity. • Demonstrate the advanced J2EE concepts using Servlets, Java RMI and EJB. • Understand, analyze and apply the role of languages like HTML, DHTML, CSS, XML, Javascript, VBScript, ASP, PHP and protocols in the workings of the web and web applications Analyze a web project and identify its elements and attributes in comparison to traditional projects. • Understand, analyze and create web pages using HTML, DHTML and Cascading Styles sheets. • Understand, analyze and build dynamic web pages using JavaScript and VBScript (client side programming). • Understand, analyze and build interactive web applications. • Understand, analyze and build web applications using PHP. • Understand, analyze and create XML documents and XML Schema.
USIT601	Software Quality Assurance	2 2	• The student will be able to identify benefits of and the needs to enforce software quality. • The students will be able to differentiate between quality control, quality management and quality assurance. • The students will be able to discuss the different components of SQA system. • The students will be able to discuss different software quality factors models. • The students will be able to understand the rational for the SE code of ethics and discuss them. • The student will be able to understand and discuss the benefits, needs and techniques of software reviews, software testing, configuration management and software metrics. • The students will be able to understand and discuss the needs for software process assessment and improvement and discuss the main SPI models: CMMI, ISO 15504 as well as process model ISO 12207. • The students will be able to initiate an assessment

			process.
USIT602 USIT6P2	Security in Computing Practical	2 2	• To master information security governance, and related legal and regulatory issues. • To be familiar with how threats to an organization are discovered, analysed, and dealt. • To be familiar with network security threats and countermeasures. • To be familiar with network security designs using available secure solutions (such as PGP, SSL, IPSec, etc. • To be familiar with advanced security issues and technologies such as DDoS attack detection and containment, and anonymous communications
USIT603 USIT6P3	Business Intelligence Practical	2 2	• Identify the major frameworks of computerized decision support: decision support systems (DSS), data analytics and business intelligence (BI). • Explain the foundations, definitions, and capabilities of DSS, data analytics and BI. • List the definitions, concepts, and architectures of data warehousing. • Demonstrate the impact of business reporting, information visualization, and dashboards. • Explain data mining, neural networks, support vector machines, text analytics, text mining, sentiment analysis, web mining, web analytics, social analytics, social network analysis. • Outline the definitions, concepts, and enabling technologies of big data analytics. • Apply big data technologies in business intelligence using geospatial data, location-based analytics, social networking, Web 2.0, reality mining, and cloud computing. • Identify the major ethical and legal issues of analytics. • Describe how analytics are powering consumer applications and creating a new opportunity for entrepreneurship for analytics. • Effectively communicate course work in writing and oral presentation.
USIT604 USIT6P4	Principles of Geographic Information Systems Practical	2 2	• Have a basic, practical understanding of GIS concepts, techniques and real world applications. Have an understanding of the technical language of GIS. • Know how GIS is utilized in the larger context of business needs and IT strategies. • Understand the basic concepts of geography necessary to efficiently and accurately use GIS technology. • Understand basic GIS data concepts. • Have an ability to perform basic GIS analysis of

			concepts. • Have demonstrated a practical application of GIS. Have practical experience using basic GIS tools. • Have an understanding of GIS and its relationship to mapping software development. • Have an appreciation of GIS career options and how to pursue them.
USIT607	Cyber Laws	2	• Students identify and analyse statutory, regulatory, constitutional, and organizational laws that affect the information technology professional. • Students locate and apply case law and common law to current legal dilemmas in the technology field. • Students apply diverse viewpoints to ethical dilemmas in the information technology field and recommend appropriate actions. • Students distinguish enforceable contracts from non-enforceable contracts. • Students demonstrate leadership and teamwork.
USIT6P1	Project Implementation	2	• Application of knowledge to develop real time applications.
USIT6P6 USIT6P6	Advanced Mobile Programming	2 2	• Mobile Application Development.