

## PROGRAMME OUTCOMES & COURSE OUTCOMES

Programme	Combination	Programme Outcomes	Programme Specific outcomes
B.A /BSc./B.Com	General English	<p>All the U.G programmes (B.A, B.Sc, B.Com ) have English as compulsory language .The motto behind is to improve the language skills like L.S.R.W (listening, speaking, reading, writing) of all students in the class. An English language lab was established in the college to give practice in vocabulary, accent, usage and communicative skills. This helps the students to develop better communication skills in English.</p> <p>Students get expertise in Letter writing, Note making, paragraph writing and in Resume /CV preparation.</p>	<p>All the U.G programmes (B.A, B.Sc, B.Com ) have English as compulsory language .The motto behind is to improve the language skills like L.S.R.W (listening, speaking, reading, writing) of all students in the class. An English language lab was established in the college to give practice in vocabulary, accent, usage and communicative skills. This helps the students to develop better communication skills in English.</p> <p>Students get expertise in Letter writing, Note making, paragraph writing and in Resume /CV preparation.</p>
<b>B.A, B.Com &amp; B.Sc</b> <b>( Second language Hindi)</b>	Hindi	<p>Expertise in the basic knowledge in Hindi language and literature and to provide proficiency to the other subject students in Second language Hindi like B.A, B.Com &amp; B.Sc. with opportunities to go for Higher Education and also employment opportunities in research. To provide knowledge in National language Hindi in the field of arts and Literature. Mass communication, Journalism, literary research and criticism are also taught to make the students employable.</p>	<ol style="list-style-type: none"> <li>1. Student s gain the master knowledge in communication skills, reading skills and writing skills effectively as professionals and continue learning within the field of Hindi language and literature.</li> <li>2. Gain specific Knowledge on poetry, prose and grammar of the language and literature in the field of Hindi as a Second Language.</li> </ol>

<p><b>B.A, B.Com &amp; B.Sc ( Second language )</b></p>	<p>Urdu</p>	<p>Expertise in the basic knowledge in Urdu language and literature and to provide proficiency to the other subject students in Second language Urdu like B.A, B.Com &amp; B.Sc. with opportunities to go for Higher Education and also employment opportunities in research. To provide knowledge in National language Urdu in the field of arts and Literature. Mass communication, Journalism, literary research and criticism are also taught to make the students employable.</p>	<p>1. Student s gain the master knowledge in communication skills, reading skills and writing skills effectively as professionals and continue learning within the field of Urdu language and literature. 2. Gain specific Knowledge on poetry, prose and grammar of the language and literature in the field of Urdu as a Second Language.</p>
<p>B.A H.E.P</p>	<p>HISTORY ECONOMICS POLITICAL SCIENCE</p>	<p>Meant to reach the higher peak of examinations i.e., groups, civil and many more</p>	<p><b>History:</b> History makes the students to make the world a better one knowing all the mistakes done in the past and also not to repeat them in future, historically, politically and economically. <b>Economics:</b> The curriculum of the B.A programme mainly focuses on social interaction, especially History and Political Science. It helps the students to know history, culture, traditions of India as well as other countries in the world. 2. The programmes with humanity subjects’ specifically political science throw light on effective citizenship. This enables the students to develop an ideal society with social concern and equity cantered nation. This type of learning triggers the spirit of the students to act upon social issues and participate in civic life through volunteering. 3. All UG</p>

		<p>programmes curriculum emphasizes on values and ethics. The students learnt the value their life and others and give importance to values and customs and maintain good rapport with others like harmony in the family and society – harmony in human relationship, understanding the harmony in the family – the basic unit of human interaction. Trust and respect as the foundational values of relationship. This course is covered in the I-semester of the UG degree.</p> <p><b>Political Science:</b> Comprehend the basic theories of political Science, structures and processes of government systems</p> <ol style="list-style-type: none"> <li>2. Participate as a good citizen of the society</li> <li>3. Analyze political and policy problems and participate in formulating policy options;</li> <li>4. Use electronic and traditional library resources to research key local, state, national and international policy issues and present results;</li> <li>5. Demonstrate critical thinking, including the ability to form an argument, detect fallacies, and martial evidence, about key issues of public policy and politics;</li> <li>6. Discuss the major theories and concepts of political science and its subfields; and deliver thoughtful and well articulated presentations of research findings.</li> </ol>
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<p>B.A ADVANCED ENGLISH</p>	<p>HISTORY  ADVANCED ENGLISH  COMPUTER APPLICATION</p>		<p><b>History:</b> History collaborated with Advanced English and Computer Applications to give History a new spice which makes the dishes of subject delicious with new techniques with Computer Applications.</p> <p><b>Advanced English:</b> 1. Developing and integrating the use of four language skills i.e. listening, speaking, reading and writing.</p> <p>2. Using English language effectively for written and oral communication.</p> <p>3. Gaining the knowledge of British and American literature.</p> <p>4.To make the students familiar with the basic forms of literature like poetic forms, figures of speech, literary terms etc.</p> <p><b>Computer Applications:</b> Hands-on experience in various practical aspects of problem solving/ programming/ experimental techniques, and data analysis and presentation competence. Effective use the software - MS Excel and C-Programming.</p>
<p>B.A H.P.U</p>	<p>HISTORY  POLITICAL SCIENCE  URDU</p>		<p><b>History:</b> History connected with Urdu language makes the subject so unique and attractive; Political Science helps the students grow in this political world.</p> <p><b>Political Science:</b> 1. Comprehend the basic theories of political Science structures and processes of government systems 2. participate as a good citizen of the society;</p>

			<p>3. analyze political and policy problems and participate in formulating policy options;</p> <p>4. use electronic and traditional library resources to research key local, state, national and international policy issues and present results;</p> <p>5. demonstrate critical thinking, including the ability to form an argument, detect fallacies, and marshal evidence, about key issues of public policy and politics;</p> <p>6 discuss the major theories and concepts of political science and its subfields; and deliver thoughtful and well articulated presentations of research findings.</p> <p><b>Urdu:</b> 1. Students gain the master knowledge in communication skills, reading skills and writing skills effectively as professionals and continue learning within the field of Urdu language and literature.</p> <p>2. Gain specific Knowledge on poetry, prose and grammar of the language and literature.</p> <p>3. The integrated use of Advanced Urdu, History and Political Science to achieve the sociological awareness and improving the moral values of all human beings with efficient leadership qualities and citizenship.</p> <p>4. Knowledge about rules, rights and regulations for the welfare of society and Nation.</p>
<b>B.A. R.D</b>	<b>Rural Development</b> <b>Advanced Telugu</b>	All the BA programmes have History / Economics / Political Science as optional subjects . The motto behind is to improve the social cultural,	<b>Rural Development:</b> 1.The curriculum of the B.A programme mainly focuses on social interaction, especially History and Political Science. It helps the students to know history, culture, traditions of

	<b>Psychology</b>	<p>economic conditions of all students in the class. All UG programmes curriculum emphasize on values and ethics. The students learn to value their life and others and give importance to values and customs and maintain good rapport with others like harmony in the family and society – harmony in human relationship, understanding the harmony in the family – the basic unit of human interaction. Trust and respect as the foundational values of relationships. This course is covered in I semester of the UG degree. The B.A., programs throw light on to awake the students regarding a concept on “Environment and Sustainability “. The curriculum is designed in such a way to understand the issues of environmental contexts and sustainable development. To mention a few topics included are environment and natural resources, basic principles of ecosystem functioning, environmental pollution, human population and environment.</p>	<p>India as well as other countries in the world.</p> <p>2. The programmes with humanity subject’s specifically political science throw light on effective citizenship. This enables the students to develop an ideal society with social concern and equity cantered nation. This type of learning triggers the spirit of the students to act upon social issues and participate in civic life through volunteering.</p> <p>3. All UG programmes curriculum emphasise on values and ethics. The students learn to value their life and others and to give importance to values and customs and maintain good rapport with others like harmony in the family and society – harmony in human relationship, understanding the harmony in the family – the basic unit of human interaction. Trust and respect as the foundational values of relationships. This course is covered in the I semester of the UG degree.</p>
<b>B.A HEP</b>	<p><b>History</b></p> <p><b>Economics</b></p> <p><b>Political science</b></p>	<p>Programme outcomes refer to broad objectives of a BA Degree programme, mainly as they are relevant to the excellence and competence of the program. The faculty in each academic degree program</p>	<p><b>History:</b> History makes the students to convert the world into a better place to live in by knowing all the mistakes done in the past and also not to repeat them in future, historically, politically and economically</p>

		<p>at KVR Govt. College for Women articulates what they want students in their program to achieve--in terms of knowledge, skills, and values--when they complete the programme referred to as Program Outcomes. By articulating these as things that students will know or be able to do, the benefits of a program of study can be clearly communicated to prospective students, to employers, and to others in the institution. The program's content, student experiences, and teaching methodologies are then aligned in an optimal way to help students achieve these learning outcomes. The college employees a continuous improvement process to evaluate and improve the effectiveness of each academic program. Striving towards achieving the mission of the college the efforts are directed to equip the students with all necessary paraphernalia.</p>	<p>Economics: The curriculum of the B.A programme mainly focuses on social interaction, especially History and Political Science. It helps the students to know history, culture, traditions of India as well as other countries in the world.</p> <p>2. The programmes with humanity subject's specifically political science throw light on effective citizenship. This enables the students to develop an ideal society with social concern and equity cantered nation. This type of learning triggers the spirit of the students to act upon social issues and participate in civic life through volunteering.</p> <p>3. All UG programmes curriculum emphasize on values and ethics. The students learnt to value their life and others and to give importance to values and customs and maintain good rapport with others like harmony in the family and society – harmony in human relationship, understanding the harmony in the family – the basic unit of human interaction. Trust and respect as the foundational values of relationships. This course is covered in I semester of the UG degree.</p> <p>Political Science:</p> <ol style="list-style-type: none"> <li>1. Comprehend the basic theories of political Science structures and processes of government systems</li> <li>2. participate as a good citizen of the society;</li> <li>3. analyze political and policy problems and participate in formulating policy options;</li> <li>4. use electronic and traditional library resources to research key local, state, national and international policy issues and present results;</li> <li>5. demonstrate critical thinking,</li> </ol>
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			including the ability to form an argument, detect fallacies, and marshal evidence, about key issues of public policy and politics; 6. discuss the major theories and concepts of political science and its subfields; and deliver thoughtful and well articulated presentations of research findings.
<b>B.Com(CA)</b>	<b>B.Com (Computer Applications ) and B.Com (General)</b>	<p>Program outcomes refer to broad objectives of a degree program, predominantly as they are relevant to the excellence and competence of the program. The faculty in each academic degree program at KVR Govt. College for Women articulates what they want students in their program to achieve-in terms of knowledge, skills, and values-- when they complete the program referred to as Program Outcomes. By articulating these as things that students will know or be able to do, the benefits of a program of study can be clearly communicated to prospective students, to employers, and to others in the institution. The program's content, student experiences, and teaching methodologies are then aligned in an optimal way to help students achieve these learning outcomes. The college employs a continuous improvement process to evaluate and improve the effectiveness of each academic program. Striving towards achieving the mission of the</p>	<ol style="list-style-type: none"> <li>1. To acquaint students with the basic concepts of commerce specially emphasizing upon the use of computers.</li> <li>2. Use information to support business processes and practices, such as problem analysis and decision making.</li> <li>3. Demonstrate knowledge of microeconomic and market theory as it relates to markets, firms, government policy, and resource allocation.</li> <li>4. Use quantitative and qualitative tools and methodologies to solve business problems and to take advantage of business opportunities.</li> <li>5. Employ critical thinking skills to analyze financial data as well as the effects of differing financial accounting methods.</li> <li>6. Apply knowledge of Income Tax Laws and procedures to individuals and businesses</li> </ol> <p>Computer Applications: Computer Applications: Hands-on experience in various practical aspects of problem solving/ programming/ experimental</p>

		college the efforts are directed to equip the students with all necessary paraphernalia.	techniques, and data analysis and presentation competence. Effectively use the software - MS Excel and C-Programming.
<b>B.Sc.</b>	B.Sc. – MPCs	<p>Possess a sound understanding of the theoretical foundation of various core subjects. Acquire analytical and logical thinking skills necessary to pursue higher Education. Gain employment at entry level positions based on program curriculum</p> <p>After the completion of UG program the student gets eligibility to join PG programme, MBA, Student will be eligible to write bank PO/Clerk examinations, Civil services and other group services examinations.</p>	<p><b>Mathematics:</b> Develop proficiency in high level mathematical methods, Acquire analytical and logical thinking skills</p> <p><b>Physics:</b> Master a broad set of knowledge concerning the fundamentals in the basic areas of Physics</p> <p><b>Computer Science:</b> Hands-on experience in various practical aspects of problem solving/ programming/ experimental techniques, and data analysis and presentation competence. Effectively use the software - MS Excel and R Programming.</p>
<b>B.Sc.</b>	B.Sc. – MPC	<p>Poses a sound understanding of the theoretical foundation of various core subjects. Acquire analytical and logical thinking skills necessary to pursue higher Education. Gain employment at entry level positions based on program curriculum</p> <p>After the completion of UG program the student gets eligibility to join in PG programme, MBA, Student will be eligible to write bank PO/Clerk examinations, Civil services and other group</p>	<p><b>Mathematics:</b> Develop proficiency in high level mathematical methods, Acquire analytical and logical thinking skills</p> <p><b>Physics:</b> Master a broad set of knowledge concerning the fundamental in the basic areas of Physics</p> <p><b>Chemistry:</b> understand the fundamental theories, the concepts and applications of chemistry. Gains knowledge of important laboratory techniques, methods, and instrumentation.</p>

		services examinations.	
<b>B.Sc.</b>	B.Sc. – BZC	<p>1. Expertise in the basic sciences provides the students with opportunities to go for Higher Education and also employment opportunities in industries, diagnostics, quality control and research</p> <p>2. Promotes an in-depth exploration in specific fields, current ways of thinking, new discoveries, and methodologies of the discipline leading the way towards biological research, health professions, business, or education.</p>	<p><b>Botany:</b> Understand plant diversity in terms of structure, function and environmental relationships, the evaluation of plant diversity, Plant classification, the role of plants in the functioning of the global ecosystem</p> <p><b>Zoology:</b> understand how animals have evolved, how they function, and the ways in which they interact with their environment.</p> <p><b>Chemistry:</b> understand the fundamental theories, the concepts and applications of chemistry. Gains knowledge of important laboratory techniques, methods, and instrumentation.</p>
<b>B.Sc.</b>	<b>B.Sc. (BC.Z.C) Biochemistry, Zoology, Chemistry</b>	<p>Expertise in the Life sciences provides the students with opportunities to go for Higher Education and also employment opportunities in Pharma industries, R&amp;B Labs, Clinical diagnostic Labs, quality control and research. Promotes an in-depth exploration in specific fields, current ways of thinking, new discoveries, and methodologies in the areas of biological research, health. Learn how to design and interpret experiments, thereby contributing to the creation of new knowledge in the fields of biochemistry. Develop an awareness of ethical</p>	<p><b>Bio Chemistry:</b></p> <ul style="list-style-type: none"> <li>• understand the chemistry, structure and function of bio-molecules. Gets the knowledge of biological mechanisms, such as the processes and control of bioenergetics and metabolism Explain the biochemical processes that underlie the relationship between genotype and phenotype</li> <li>• Gets a practical experience of wide range of biochemical techniques (e.g. basic molecular biology, cell biology and microbiology methods, spectrophotometry, the use of standards for quantification, enzyme kinetics; macromolecular purification, chromatography and electrophoresis)</li> <li>• Analyse biochemical data, (e.g. in enzyme kinetics, molecular structure analysis and biological databases)</li> </ul> <p><b>Zoology:</b> understand how animals</p>

| | responsibilities in research. | have evolved, how they function, and |

			<p>the ways in which they interact with their environment.</p> <p><b>Chemistry:</b> understand the fundamental theories, the concepts and applications of chemistry. Gains knowledge of important laboratory techniques, methods, and instrumentation.</p>
<b>B.Sc.</b>	<p><b>B.Sc(Bt.B.C)</b> <b>Biotechnology,</b> <b>Zoology,</b> <b>Chemistry</b></p>	<p>Expertise in the basic sciences provides the students with opportunities to go for Higher Education and also employment opportunities in industries, diagnostics, quality control and research. Promotes an in-depth exploration in specific fields, current ways of thinking, new discoveries, and methodologies in the areas of biological research, health professional development, business and Education</p>	<p><b>Biotechnology:</b> 1. Gain fundamental Knowledge of Bio-molecules and microorganisms 3. The integrated use of Biotechnology, Botany and Chemistry to achieve the technological application of scientific and engineering principles for processing of materials by biological agents to provide goods and service for the welfare of mankind.</p> <p><b>Botany:</b> Understand plant diversity in terms of structure, function and environmental relationships, the evaluation of plant diversity, Plant classification, the role of plants in the functioning of the global ecosystem. <b>Chemistry:</b> understand the fundamental theories, the concepts and applications of chemistry. Gains knowledge of important laboratory techniques, methods, and instrumentation.</p>
<b>B.Sc.</b>	<b>B.Sc. ( Home Science)</b>	Understand the multidisciplinary approach to enhance the quality of life of the individuals, families and communities. Conceptualizes the students' knowledge and skill right from where the human life starts how it	<p>1. Understand the concepts of food science and nutrition and plan to meet the nutritional requirements of family and community.</p> <p>2. Understand various dimensions of human development across life span and family living with respect to</p>

		develops and expands in varied dimensions through different courses. Develop professional and entrepreneurial skills for social and economic empowerment.	society. 3. Learn about fibers and fabric construction, current trends in the field of textiles and fashion designing. 4. Understand the basics of housing, interior decoration and principles & processes of sustainable resource management. 5. Promote capacity building to extend knowledge and skills from laboratory to the people through effective communication and use of technology
<b>B.Sc.</b>	<b>B.Sc (CPCs) Chemistry, Physics, Computer science</b>	Expertise in the basic sciences provides the students with opportunities to go for Higher Education 2. Promotes an in-depth exploration in specific field, current ways of thinking, new discoveries, and methodologies of the discipline. Gain employment at entry level positions based on program Curriculum	<b>Chemistry:</b> understand the fundamental theories, the concepts and applications of chemistry. Gains knowledge of important laboratory techniques, methods, and instrumentation. <b>Physics:</b> Master a broad set of knowledge concerning the fundamentals in the basic areas of Physics. <b>Computer Science:</b> Hands-on experience in various practical aspects of problem solving/ programming/ experimental techniques, and data analysis and presentation competence. Effectively use the software - MS Excel and R-Programming.
<b>B.Sc.</b>	<b>B.Sc. (MCDs) Mathematics, Computers, Data Science</b>	Expertise in the basic sciences provides the students with opportunities to go for Higher Education 2. Promotes an in-depth exploration in specific field, current ways of thinking, new discoveries, and methodologies of the discipline. Gain employment at entry level	Apply the knowledge gained during the course of the program to identify, formulate and solve real life complex problems faced in industries and/or during research work with due consideration for the public health and safety, in the context of cultural, societal, and environmental situations.

		positions based on program curriculum. Get ability to analyze a problem, identify and define the computing requirements appropriate to its solution. Get ability to design, implement, and evaluate a computer-based system, process, component, or program to meet desired needs.	Apply the knowledge of ethical and management principles required to work in a team as well as to lead a team. Comprehend and write effective project reports in multidisciplinary environment in the context of changing technologies.
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## COURSE OUTCOMES - ARTS

### DEPARTMENT OF TELUGU (ADVANCED TELUGU)

S. No.	Code	Title of the Paper	CO	Course Outcomes
1	1121	General Telugu I SEM I Paper	001	By studying Ancient Poetry of Pothana, Spirituality, Telugu Tradition and Culture will be Improved.
			002	The study of Mother Tongue and Literature improves Personality Development.
			003	To gain the knowledge of modern Literature.
2	2121	General Telugu II SEM I Paper	001	Students can gain the knowledge in literature and it develops the social awareness.
			002	It develops interest in history, tradition, culture and enhances moral values and incorporates good personality.
			003	To inculcate inner abilities among the students through Telugu Language.
3		General Telugu III SEM II Paper	001	It will enhance the Linguistics , Letter Writing and Reading Skills
			002	Students Vocabulary will be develop and also develop Social awareness.
			003	Students' Psychological development will be Improved. Moral values will be developed
			001	Expertise in the depth of Telugu Literature

4	1401	Advanced Telugu I SEM I Paper	002	To develop special Interest towards Telugu Epics.
			003	To develop Interest in Sanskrit Natakas.
5	2401	Advanced Telugu II SEM I Paper	001	By reading Vemana and Neethi shathka moral values can be incorporated among students.
			002	To gain interest in BHAVA KAVITHVAM
			003	To understand Dalith Literature.
6		Advanced Telugu III SEM II Paper	001	Students Know about the Ancient Telugu Literature.
			002	By Studying Telugu literature Student will develop interest in famous Telugu Writers.
			003	Critical and analytical skills will be developed among the students.
7		Advanced Telugu VI SEM II Paper	001	Students will understand the Modern Literature.
			002	Writings skills in different methods will be developed.
			003	Will aware of the social movements and gain Knowledge of the Modern Literature like Feminism, Dalith and Minority Writers.
8		Advanced Telugu V SEM V & VI Papers	001	Comprehensive knowledge of Telugu Literature.
			002	Depth knowledge of Telugu grammar.
			003	To gain the knowledge of Indian Languages and to know the importance of Telugu.
9		Advanced Telugu Elective Papers VI SEM VII & VIII Papers	001	By reading Journalism, students get the job opportunities and also know about the Media. It will helpful to become a Journalist.
			002	To gain the knowledge of Telugu Sentence formation and parts of Speech.
			003	By Studying students will get idea about Translation and get opportunities in Different fields.

DEPARTMENT OF TELUGU				
s.no	Code	Course	co	Course outcome
1	101	Sampradaya sahithya adhyanam ISEM IPaper	001	Students will get an idea about ancient literature by reading Traditional text.
			002	Students get a chance to know about Nannaya, Thikkanna Mahabharatha and Pothna Mahabagavatham.
	201	II SEM	001	Study of Traditional Text
			002	Student gets Knowledge and information about the Literature of 15 <sup>th</sup> and 16 <sup>th</sup> Centuries.
2	102	Prachina Sampradya Adhyana rithulu	001	Ancient Traditional study provides The information about the characteristic Features of Kavya, the writers of kavithrayam and popular vaggeyakarulu.
			002	Students will know about the great writers.
	202	II SEM	001	Students will know the characteristics of great writings Like sathaka, Bhakthi, Neethi and all other sathkas.
			002	To know the Different forms of Ancient & Modern Literature.
3	103	Samanya Basha viganam	001	Students will understand ancient language, origin of language and relation of other Languages.
			002	Students get clarity of Language. Will get job opportunities in the field of speech therapy and social worker will know about difference between Different Dialects.
	203	II SEM	001	Students brought to known about the changes in Languages of different Periods.
			002	Student will aware of the function of Official Language.
4	104	Janapada sahithyamu	001	Expertise in the Folk Literature
			002	To know about the Folk stories, Folk Songs and different forms.

	204	II SEM	001	To know about Folk Traditions, Proverbs, Riddles, Art, Believes and speeches
			002	To gain the Knowledge of Folktales of Andhra Pradesh, Folk lore of AP.
5	105	Aadhunica Telugu Sahithya Vikasam	001	To Know the Modern Language And inculcate the inner abilities among the students.
			002	To gain the knowledge of Novels, Natakas and Poetic stories.
	205	II SEM	001	To know the modern Literature and modern Poetry.
6	106	Telugu pathrika rangam – Rachna vidanamu	001	By reading Journalism students get the job Opportunities and also knows about the Media. It will helpful to become a Journalist
	206	Anuvada vidanalu- Naipunyalu.	001	By Studying students will get idea about Translation and get opportunities in Different fields.

## DEPARTMENT OF URDU

### Course Outcomes ( Advance Urdu)

S.No.	Paper Code	Paper Title	Course Outcomes
1	1461	Urdu Fiction & Drama	Knowledge on short stories, novels and dramas and also the method of writing.
2	2461	Non Fiction Literature	Able to differentiate between Fiction and nonfiction Essays and articles.
3	3461	Urdu Poetry	To develop the poetry skills with its phonetics. Annotation of Poems.
4	4461	Urdu Poetry and Prose	Able to differentiate between Poetry and Prose and its grammar.
5	5461	History of Urdu Literature-I	Improving the Knowledge about the History of Urdu Literature Part - I
6	5462	History of Urdu Literature-II	Improving the Knowledge about the History of Urdu Literature Part - II
7	6461	Criticism	The specific knowledge of research and criticism for the purpose of higher education

8	6462	Means of Communication	For the purpose of Journalism and to develop the communication skills
9	6463	Grammar	To understand the concept of language and grammar.
10	6464	Translation	Option of more learning languages and to understand the other language enrichment and translate it into your own.

### COURSE OUTCOMES ( SECOND LANGUAGE URDU)

S.No.	Course Code	Course	Course Outcomes
1	1131	Urdu Poetry	To develop the poetry skills with its meaning, phonetics and grammar. Annotation of Poems
2	2131	Urdu Poetry and Prose	Able to differentiate between Poetry and Prose and writing skills. Annotation of Poems and prose.
3	3131	Urdu Poetry and Prose	Annotation of selected Poems and prose of the syllabi.

### DEPARTMENT OF POLITICAL SCIENCE

S.No.	Paper Code	Paper Title	CO	Course Outcomes
1	BA -1441	Paper I Basic Concepts of Political Science	CO1	Acquire Basic Concepts of Political Science
			CO2	Acquaint with Explanatory Frameworks of Politics
			CO3	To know What is the State and its origin
			CO4	Equip with the knowledge of Nations and Nationalism
			CO5	Aware of the Rights and Citizenship , Freedom, Equality and Justice
2	BA -2441	Paper II Political Institutions (Concepts, Theories and Institutions)	CO1	Understand the scope of Business, and its importance.
			CO2	This helps them to understand the functions of Political Institutions
			CO3	Make the students aware of The Purpose of Constitutional law and Theory of Separation of Powers
			CO4	Understand the Institutional forms of the Modern State
			CO5	Helps to comprehend the functions of Judiciary in Democratic State
3	BA -3441	Paper III Indian	CO1	Understand The ideological legacy of the Indian

		Constitution		National Movement on the Constituent Assembly. The underlying values of the Indian Constitution
			CO2	The underlying values of the Indian Constitution
			CO3	Fundamental rights and Directive principles of State Policy
			CO4	Evaluate the functioning of Indian Federalism
			CO5	Analyze Working of the Indian Constitution
4	BA -4441	Paper IV Indian Political Process	CO1	Acquaint with Approaches to Study the Political Processes in India
			CO2	Understand Social Structure and Democratic Process
			CO3	Analyze the relationship between Religion and Politics
			CO4	Comprehend the Party and Electoral Processes in India, Describing the Marxist Approach to politics.
			CO5	Understand the Determinants of Voting Behaviour in India
5	BA -5441	Paper V Indian Political Thought	CO1	Understand the Traditions Of Ancient Indian Political Thought
			CO2	Understand Renaissance Thought
			CO3	Know about Early Nationalism
			CO4	Learn about Religious Nationalism
			CO5	Comprehend Democratic Egalitarianism
6	BA -5442	Paper VI Western Political Thought	CO1	Know Classical Western Political Thought
			CO2	Understand Early Medieval to the Beginning of Modern thought
			CO3	Early Medieval to the Beginning of Modern Thought
			CO4	Distinguish between Liberal thought and Liberal Democratic Thought
			CO5	Critical analysis Philosophical Idealism ,
7	BA -6441	Paper VII-(C): Local Self - Government in Andhra Pradesh	CO1	Understand the Evolution of Local Self-Government in India
			CO2	Aware of the Historical Importance of Constitutional Amendments
			CO3	Know the Structure and functions of Panchayati Raj in Andhra Pradesh
			CO4	Function Analyze Structure and s of Urban local bodies in Andhra Pradesh
			CO5	5. Understand Role of Leadership and Emerging Challenges

8	BA -6442	Paper VIII-C-1 International Relations	CO1	1.Comprehend the Basic Concepts of International Relations
			CO2	2. Know the Phases of International Relations
			CO3	Understand the Phases of International Relations after 1945
			CO4	Know the International Organizations
			CO5	understand Problems of the Third World
9	BA -6443	Paper VIII-C-2 : Indian Foreign Policy	CO1	Understand the Evolution of Indian Foreign Policy
			CO2	learn objectives, Structure and functions of Non-Alignment and UNO
			CO3	Study India's Relation with USA and China
			CO4	Understanding the India and her Neighbors
			CO5	learn objectives, Structure and functions of SAARC
10	BA -6444	Paper VIII-C-3 Contemporary Global Issues	CO1	Understand the Concept of Globalization
			CO2	Understand the Anchors of Global Political Economy
			CO3	Know about Nation State and Globalization
			CO4	Comprehend Contemporary Global issues
			CO5	Acquire knowledge and consequences steps to eradicate International Terrorism

## DEPARTMENT OF COMMERCE

S.No.	Paper Code	Paper Title	CO	Course Outcomes
1	B.Com 1511	FUNDAMENTALS OF ACCOUNTING - I	CO1	1. Acquire conceptual knowledge of basics of accounting.
			CO2	2. Develop the skill of recording financial transactions and preparation of reports in accordance with GAAP.
			CO3	3. Describe the role of accounting information and its limitations.
			CO4	4. Equip with the knowledge of accounting process and preparation of final accounts of sole trader.
			CO5	5. Identify and analyze the reasons for the difference between cash book and pass book balances

2	<b>B.Com 1512</b>	<b>BUSINESS ORGANIZATION</b>	CO1	1. Understand the scope of Business, and its importance.
			CO2	2. This helps them to deal with individual and group behavior in the organization and increase their decision making capabilities
			CO3	3. Describe the Social Responsibility and Ethics of Business
			CO4	4. Analyze different forms of business organizations
			CO5	5. Identify various vital documents of a company
3	<b>B.Com 1513</b>	<b>BUSINESS ECONOMICS</b>	CO1	1. Understand economics in terms of business
			CO2	2. Evaluate supply and demand analysis
			CO3	3. Analyze the consumer behavior.
			CO4	4. Interpret the factors affecting firm such as production , costs and revenue
			CO5	5. Analyze the performance of firms under different market structures.
5	<b>B.Com 2511</b>	<b>FUNDAMENTALS OF ACCOUNTING - II</b>	CO1	1. Appreciate the need for negotiable instruments and procedure of accounting for them
			CO2	2. Evaluate the Concept of Consignment and learn its accounting treatment
			CO3	3. Distinguish Joint Venture and Partnership and to learn the methods of maintaining records under
			CO4	4. Determine the ascertainment of profit under Single Entry system.
			CO5	5. Understand the meaning and features of Non-Profit Organizations
6	<b>B.Com 2512</b>	<b>PRINCIPLES OF MANAGEMENT</b>	CO1	1. Understand The importance of Administration & Management.
			CO2	2. Interpret the Principles of Management in traditional & modern scientific way.
			CO3	3. Demonstrate the details about Planning and MBO
			CO4	4. Learn about Principles of Organization & various types of Organizations.
			CO5	5. Learn about Co-ordination, Control, Principles, techniques & Span of Management.

7	<b>B.Com 2513</b>	<b>BUSINESS ECONOMICS - II</b>	CO1	1. Understand economic environment, effective managerial decision-making process
			CO2	2. Understand of the theory and analytical tools that can be used in decision-making problems.
			CO3	3. Analyze knowledge of the economic theory with decision-making techniques.
			CO4	4. Use economic models to isolate the relevant elements of a managerial problem, identify their relationships
			CO5	5. Formulate them into a managerial model to which decision making tools can be applied.
8	<b>B.Com 3501</b>	<b>CORPORATE ACCOUNTING</b>	CO1	2. To impart the knowledge of concept of Corporate accounting process
			CO2	To know about the types of shares and issue of share capital and issue, redemption process of Debentures
			CO3	3. Apply the New Companies Act provisions regarding Company accounts.
			CO4	4. Evaluate the different ways for a company to raise finances from public.
			CO5	5. Understand Profits prior to incorporation of a Company.
9	<b>B.Com 3502</b>	<b>BUSINESS STATISTICS</b>	CO1	1. Understand basic statistical concepts such as statistical collection, statistical series, tabular
			CO2	2. Predict values of strategic variables using regression and correlation analysis
			CO3	3. Calculate measures of central tendency, dispersion and asymmetry
			CO4	4. Interpret the meaning of the calculated statistical indicators.
			CO5	5. Choose a statistical method for solving practical problems.
10	<b>B.Com 3503</b>	<b>BANKING THEORY AND PRACTICE</b>	CO1	1. Describe the Origin and Growth of Banking in India
			CO2	2. Discuss the role and functions of RBI.
			CO3	3. Explain different types of banks and their functions.
			CO4	4. Understanding the Banker And Customer relationship
			CO5	5. Classify and compare the Negotiable Instruments



11	<b>B.Com 4501</b>	<b>BUSINESS LAWS</b>	CO1	1. Demonstrate, understand and communicate all the Legal Terminology of Business.
			CO2	2. Understanding Development of Business Law in India
			CO3	3. Outline Essentials of a valid Contract and agreements expressly declared to be void
			CO4	4. Wagering Agreements from Contingent contracts and classify different modes of Discharge.
			CO5	5. Acquire knowledge about Sale of Goods Act 1930.
12	<b>B.Com 4502</b>	<b>INCOME TAX</b>	CO1	1. Apply the conceptual and legal knowledge about Income Tax provisions.
			CO2	2. Computation of Income from different heads with reference to an Individual Assessee.
			CO3	3. Identify intra and inter head set of losses and carry forward of losses
			CO4	4. Understand clubbing of income and the term aggregation of income
			CO5	5. Identify various deductions under section u/s80 C to 80 U.
13	<b>B.Com 5501</b>	<b>COST ACCOUNTING</b>	CO1	1. Imbibe conceptual knowledge of cost accounting.
			CO2	2. Select the costs according to their impact on business
			CO3	3. Differentiate methods of schedule costs per unit of production and calculating stock consumption.
			CO4	4. Identify the specifics of different costing methods and interpret the impact of the selected costs
			CO5	5. Demonstrate mastery of costing systems, cost management systems, budgeting systems
14	<b>B.Com 5502</b>	<b>AUDITING</b>	CO1	1. Understanding Auditing as per AASB.
			CO2	2. Explain the Qualification, Disqualification, Rights and Duties of an Auditor.
			CO3	3. Describe Audit programme ,Audit Note Book ,Audit Working Notes and Audit

				Markings
			CO4	4. Define Internal Audit and internal control, its meaning and objectives, types of Vouchers
			CO5	5. Describe the meaning and role of Audit Committee with reference to Audit Reports.
16	<b>B.Com 5503</b>	<b>COMMERCIAL GEOGRAPHY</b>	CO1	1. Understanding of the Earth -Soils - Environment - Water Resources - Mines - Rivers etc.
			CO2	2. To impart knowledge Major Crops and Food and Non- Food Crops - Importance of Agriculture.
			CO3	3. To know about the Indian Forestry and Forest Rights Act, 2006.
			CO4	4. India-Minerals and Mining - Renewable and non Renewable - Uses o Minerals
			CO5	5. Water Resources - Rivers - Experiences of India and Andhra Pradesh.
17	<b>B.Com 5504</b>	<b>E - COMMERCE</b>	CO1	1. Able to information technology and E-commerce CO2 can understand various multimedia applications
			CO2	2. Would learn the various authentication security issues in E-commerce
			CO3	3. Able various forms of the E-commerce applications and its usages and security issues
			CO4	4. Would be able to understand computerized accounting
			CO5	5. to impart knowledge of Payment gateways in E-Commerce Business
18	<b>B.Com 6501</b>	<b>MARKETING</b>	CO1	1. Students can identify the core concepts of rural and urban markets and take different marketing challenges and opportunities
			CO2	2. Students can improvise their organization in micro and macro environment
			CO3	3. Students can segment the products as per the market conditions
			CO4	4. Helps students to identify various psychological consumer behavior for their produce products
			CO5	5. It allows the students to apply various strategies in producing the products
19	<b>B.Com</b>	<b>GOODS AND</b>	CO1	1. To learn basic concepts of Goods and

	<b>6502</b>	<b>SERVICE TAX(GST)</b>		Service Tax
			CO2	2. Will gain knowledge of GST planning for Business
			CO3	3. Will understand and equip by the filling tax returns
			CO4	4. Will have Some knowledge on establishments and taxes on them
			CO5	5. It allows the Students to apply various strategies in producing the products
20	<b>B.Com 6503</b>	<b>MANAGEMENT ACCOUNTING</b>	CO1	1. Acquire knowledge and techniques of Management Accounting.
			CO2	2. Prepare various analytical financial statements.
			CO3	3. Understand the use of related financial information relevant to the various users
			CO4	4. Identify the operational efficiency and managerial effectiveness.
			CO5	5. Analyze the reasons for change in profitability and financial position of the firm.
21	<b>B.Com 6504</b>	<b>TALLY ERP - 9</b>	CO1	1. To provide and overviews of various types of Accounting software
			CO2	2.. To give in-depth knowledge of Tally Accounting Software
			CO3	3. To learn about data entry in the software
			CO4	4. Generation of Reports and Tax Filing
			CO5	5. Exporting and Saving of Reports

# SCIENCES

## DEPARTMENT OF BIOCHEMISTRY

S.No.	Paper Code	Paper Title	CO	Course Outcomes
1	1301	<b>Cell biology, Carbohydrates, Lipids and Proteins</b>	CO1	Comprehensive knowledge of Cell biology
			CO2	understand water role in biological processes and measurement of PH
			CO2	Knowledge on carbohydrates Classification , Biological Importance of carbohydrates
			CO3	Knowledge on Lipids Classification , Biological Importance of Lipids
			CO4	Knowledge on Amino acids, Classification , Peptides, Biologically important peptides
			CO5	Knowledge on Proteins, Classification and Biological Importance of proteins
2	2301	<b>Nucleic acids and Biochemical Techniques</b>	CO1	Knowledge on Structure of Nucleic acids, Types of DNA, RNA
			CO2	Define and classify Structures of porphyrins
			CO3	Understand principles and applications of centrifugation, chromatography techniques like Paper, Thinlayer, Gel filtration, Ion exchange and Affinity. Electrophoresis
			CO4	Understand the principles and application Colorimetry and Spectrophotometry, Tracer techniques
			CO5	Describe outlines of Intermediary metabolism, methods of investigation
3	3301	<b>Enzymology and Bioenergetics</b>	CO1	Understand Classification of Enzymes and Structure
			CO2	Understand Influence of Physical factors and Inhibitors on Enzyme activity
			CO3	Understand Outline Of mechanism of enzyme action, Regulation of enzyme activity
			CO4	Understand Bioenergetics: Thermodynamic principles
			CO5	Understand Biological Oxidations in Mito chondria

4	4301	<b>Intermediary Metabolism</b>	CO1	Understand the Concept of anabolism and catabolism, Carbohydrate Metabolism
			CO2	Understand the Concept of Lipid Metabolism
			CO3	Understand the Concept of Amino acid Metabolism
			CO4	Understand the Concept of Nitrogen cycle, Non-biological and biological nitrogen fixation
			CO5	Understand the Concept of Metabolism of Nucleic acid and heme.
5	5301	<b>Physiology, Clinical Biochemistry and Immunology</b>	CO1	Understand and analyze the concepts Digestion and absorption of carbohydrates, lipids and proteins. Composition of blood
			CO2	Understand Endocrinology- organization of endocrine system. Classification of hormones
			CO3	Understand the Concept of Nutritional Biochemistry
			CO4	Understand the Concept of Clinical Biochemistry
			CO5	Understand the concepts of Innate and Acquired Immunity, Haptens and monoclonal antibodies
6	5302	<b>Basic Microbiology</b>	CO1	Understand the concepts of History and Development of Microbiology
			CO2	Able to differentiate between prokaryotic and eukaryotic cells and explain the characteristics of bacteria, virus, fungi, protozoa, algae
			CO3	Understand the viruses Poxvirus and Poliovirus. Bacterial Diseases- Cholera and Typhoid Protozoan Diseases
			CO4	Understand and analyze the concepts phycology; General characteristics of algae
			CO5	Understand and analyze the concepts General characteristics of fungi and Economic Importance of Fungi
7	6301	<b>Microbiology and Molecular Biology</b>	CO1	Comprehensive knowledge of Micro biology

			CO2	Understand and analyze the concepts of DNA replication and enzymology
			CO3	Understand and describe the process of Protein synthesis and regulation of Prokaryotic gene expression
			CO4	Explain Gene regulation through Operon concept, and regulatory elements
			CO5	Understand the concepts of fermentation technology, Applied Biochemistry
8	6302	Hematology	CO1	Understand the concepts Laboratory Preparation in Hematology
			CO2	Understand the concepts Haemoglobin synthesis. Various haemoglobins. Haemopoietic system of the body. Blood cell counts
			CO3	Understand the concepts Haemostasis and Haematological Diseases
			CO4	Understand the concepts Automation in Haematology
			CO5	Understand The concepts Immunohaematology and Blood banking
9	6303	Clinical Microbiology	CO1	Understand the concepts Clinical Microbiology
			CO2	Understand the concepts Clinical Bacteriology Laboratory & Staining methods
			CO3	Understand the concepts Culturing of Microorganisms and Identification of Bacteria
			CO4	Understand the concepts Clinical Mycology and Virology
			CO5	Understand the concepts Diagnostic Serology
10	6304	Biochemical Correlations in Diseases	CO1	Understand the concepts Inborn errors of metabolism
			CO2	Understand the concepts Nutritional Deficiency and Life style diseases
			CO3	Understand the concepts Hormonal Imbalances and Autoimmune diseases
			CO4	Understand the concepts Classification of infectious agents

## DEPARTMENT OF BIOTECHNOLOGY

S.No.	Paper Code	Paper Title	CO	Course Outcomes
1	1311	Cell Biology and Microbiology	CO1	Comprehensive knowledge of Cell biology
			CO2	Able to differentiate between prokaryotic and eukaryotic cells and explain the characteristics of bacteria, virus, fungi, protozoa, algae
			CO3	Knowledge on control of microorganisms by physical and chemical sterilization methods
			CO4	Explain about methods of cultivation and preservation of microorganisms
2	2311	Macromolecules, Enzymology and Bioenergetics	CO1	Define and classify carbohydrates, amino acids, lipids and structures
			CO2	Define and classify proteins and nucleic Acids
			CO3	Define holoenzyme, apoenzyme, coenzyme, cofactor and classify enzymes
			CO4	Define Biological Oxidations, Reduction potential, Free energy
			CO5	Describe energy transformations in living systems
3	3311	Biophysical Techniques	CO1	Understand principles and applications of centrifugation, chromatography techniques like Paper, thin layer, Gel filtration, Ion exchange and Affinity.
			CO2	Understand the principles and applications of Electrophoresis, Colorimetry, Spectrophotometry
			CO3	Principles of tracer technique, advantages and limitations, applications of isotopes in biotechnology
			CO4	Measurement of radioactivity
4	4311	Immunology	CO1	Understand the concepts of Innate and Acquired Immunity, Haptens and monoclonal antibodies
			CO2	Describe the immunological reactions like agglutination, Immunoprecipitation and apply the knowledge in Immunodiagnostics
			CO3	Understand immune cells and organs, antigen- antibody reactions.

			CO4	Describe MHC complex, Antibody diversity, Hypersensitivity and autoimmunity.
			CO5	Transplantation Immunology, Cancer and Immune system.
5	5311	Molecular Biology	CO1	Understand and analyze the concepts of DNA replication and enzymology.
			CO2	Understand and describe the process of Protein synthesis and regulation of Prokaryotic gene expression.
			CO3	Explain Gene regulation through Operon concept, and regulatory elements
6	5312	Recombinant DNA Technology	CO1	Understand the concepts of cloning, DNA sequencing, Vectors, Hosts and Tools of r-DNA technology and Tools of r-DNA technology
			CO2	Comprehend cloning , construction of c-DNA library and different types of vectors
			CO3	Understand and analyze the concepts of PCR, Blotting techniques, c-DNA & Genomic library and apply the knowledge in the production of recombinant products,DNA Fingerprinting
7	6311	Plant and Animal Tissue Culture	CO1	Plant tissue culture Introduction to cell and tissue culture laboratory facilities, sterilization methods in tissue culture, Tissue culture media
			CO2	Protoplast culture, Somatic hybridization, Micro-propagation
			CO3	Invitro fertilization and Embryogenesis
			CO4	Concept of Gene Therapy, Application of transgenic animals
8	6312	Plant Tissue Culture	CO1	Physio- chemical conditions for propagation of plant cells and tissues; Protoplast isolation, fusion, cultivation, cybridization.
			CO2	Direct gene transfer methods, Invitro fertilization – Ovary and ovule culture, clonal propagation, somatic embryogenesis. Invitro production of secondary metabolites
			CO3	Role of plant Tissue culture in Indian Agriculture, Production of Transgenic plants
9	6313	Animal Tissue Culture	CO1	Study Animal cell culture media, preservation of cell lines, transgenic animals

			CO2	Describe Stem cells, IVF and Embryo transfer technique
10	<b>6314</b>	Biosafety, Bioethics, IPR, Genetic counseling	CO1	Principles, Role of Institutional Biosafety committee; Assessment of pharmaceutical products like drugs/Vaccines.
			CO2	Introduction, Principles, Theories and its applications
			CO3	Protection of Plant varieties and IPR
			CO4	Identify Genetic disorders, Prenatal diagnosis and Gene therapy

## DEPARTMENT OF CHEMISTRY

S.No.	Paper Code	Paper Title	CO	Course Outcomes
1		Inorganic & Organic Chemistry	CO1: p-block elements –I	Student acquires understanding over the preparation, properties and uses of diborane, silanes, silicones, hydrazine and hydroxylamine.
			CO2: p-block elements -II	Students acquire comprehensive knowledge on classification of oxides, preparation, properties of interhalogen compounds and organolithium and Grignard compounds.
			CO3: Structural theory in Organic Chemistry	Student acquires an understanding over the concepts involved in the mechanism of organic reaction.
			CO4: Acyclic Hydrocarbons & Alicyclic hydrocarbons (Cycloalkanes)	Student acquires understanding over the preparation, properties and uses of alkenes and alkynes.
			CO5: Benzene and its reactivity	Students gain understanding over molecular structure of benzene its chemical reaction and mechanism.
2		Physical & General Chemistry	CO1: Solidstate	Students gain knowledge on symmetry elements of crystals, Braggs law and crystal defects.
			CO2: Gaseous state & Liquid state	Students gain knowledge on vanderwaals equation, Joule Thomson effect, Liquid crystals and their applications.
			CO3: Solutions	Students gain understanding on Raoult's law, types of solutions, Nernst distribution law
			CO4: Surface chemistry & Chemical Bonding	Students understand the concept of adsorption, types, properties and uses of colloids and knowledge over theories of chemical bonding.
			CO5: Stereochemistry of carbon compounds	Students understand the concepts of Stereochemistry.
3			CO1: Chemistry of d-block elements & Theories of bonding in metals	Students gain knowledge on the electronic configuration and properties of d-block elements and various theories of bonding in metals.
			CO2: Metal carbonyls &	Student's gains knowledge on the electronic configuration and properties of f-block

		Inorganic & Organic Chemistry	Chemistry of f-block elements	elements and structural properties of metal carbonyls.
			CO3: Halogen compounds & hydroxy compounds	Students will know about the preparation, properties and uses of halogen and hydroxyl compounds.
			CO4: Carbonyl compounds	Students will know about the preparation, properties and uses aldehydes and ketones.
			CO5: Carboxylic acids and derivatives & Active methylene compounds	Students will know about the preparation, properties of carboxylic acids and their derivatives and active methylene compounds – AAE, ME.
4		Spectroscopy & Physical Chemistry	CO1: General features of absorption & Electronic spectroscopy	Student gain knowledge on principles of absorption and electronic spectroscopic techniques.
			CO2: Infra red spectroscopy & Proton magnetic resonance spectroscopy ( $^1\text{H-NMR}$ )	Student gain knowledge on principles of Infra red $\gamma$ & Proton magnetic resonance ( $^1\text{H-NMR}$ ) spectroscopic techniques.
			CO3: Dilute solutions	Students gain knowledge on various colligative properties and their experimental determination.
			CO4: Electrochemistry-I	Students acquire an understanding of the concepts of electrochemistry – Transport number, Conductance etc.,
			CO5: Electrochemistry-II & Phase rule	Students acquire an understanding of the concepts of electrochemistry – types of electrodes, potentiometric titrations and principles and applications of phase rule.
5		Inorganic, Physical & Organic Chemistry	CO1: Coordination Chemistry	Students acquire knowledge over concepts of co-ordination compounds, their nomenclature and isomerism.
			CO2: Magnetic properties of metal complexes & Stability of metal complexes	Students acquire knowledge over concepts of magnetic properties and stabilities of metal complexes.
			CO3: Nitro hydrocarbons	Students gain understanding on preparation, properties and uses of nitro alkanes, NEF, Mannich and Michael addition reactions.
			CO4: Nitrogen	Students gain knowledge on the types of

			compounds	amines, the preparation properties and uses of aromatic amines.
			CO5: Thermodynamics	Students gain understanding over the concepts of thermodynamics, Carnot's cycle, adiabatic and isothermal processes, entropy and its significance.
6		Inorganic, Organic & Physical Chemistry	CO1: Reactivity of metal complexes & Bioinorganic chemistry	Students acquire knowledge about various biological importance various inorganic elements.
			CO2: Chemical kinetics & Photochemistry	Students gain understanding the concepts of chemical kinetics and reaction mechanism of photochemical reactions.
			CO3: Heterocyclic Compounds	Students gain knowledge on synthesis and properties of Pyrrole, Pyridine, Furan and Pyridine.
			CO4: Carbohydrates	Students gain understanding on the structure of glucose, fructose and mechanisms of interconversions.
			CO5: Amino acids and proteins	Students acquire knowledge on synthesis, properties of amino acids and classification, structure of proteins.
7		Analytical methods in Chemistry	CO1: Quantitative analysis	Students gain knowledge on principles of volumetric and gravimetric analysis.
			CO2: Treatment of analytical data	Students understand the concepts of errors, significant figures, Precision, accuracy standard deviation and confidence limit.
			CO3: Separation Techniques In Chemical Analysis	Students gain knowledge on the principles of Solvent extraction and Ion exchange.
			CO4: Chromatography	Students acquire knowledge on the classification, instrumentation of Paper chromatography.
			CO5: Chromatography	Students acquire knowledge on the classification, instrumentation of Column and Thin layer chromatography.
8		Organic Spectroscopic Techniques	CO1: General features of absorption	Students gain knowledge on the concepts of Beer's law and the quantitative determination of Metal ions.
			CO2: UV & Visible Spectroscopy	Students gain knowledge on concepts of UV-Visible spectroscopy.
			CO3: Nuclear Magnetic Resonance	Students gain knowledge on concepts of nuclear magnetic resonance spectroscopy.

			Spectroscopy - I	
			CO4: Nuclear Magnetic Resonance Spectroscopy – II	Students gain knowledge on concepts of nuclear magnetic resonance spectroscopy.
			CO5: Mass Spectrometry	Students gain knowledge on concepts of Mass spectrometry.
9		Advanced Organic Reactions	CO1: Organic Photochemistry- I	Students gain knowledge on principles of Organic photochemistry and photoreduction reaction.
			CO2: Organic Photochemistry- II	Students acquire knowledge on Norrish, photo fries rearrangement, Di-pimethane rearrangement reactions.
			CO3: Protecting Groups And Organic Reactions	Students gain knowledge on the protection of different functional groups.
			CO4: Synthetic reactions	Students acquire knowledge on Mannich, Shapiro, stark-enamine, wittig reactions and umpolung.
			CO5: New Synthetic Reactions	Students acquire knowledge on new synthetic reactions.
10		Pharmaceutical and Medicinal Chemistry	CO1: Pharmaceutical chemistry Terminology	Students gain understanding of basic terminology of pharmacy.
			CO2: Drugs	Students gain knowledge on the nomenclature and classification of drugs.
			CO3: Structure, therapeutic use, activity, dosage and adverse effects of the drugs	Students gain understanding of antibiotics, cardiovascular drugs and antimicrobials.
			CO4: Structure, therapeutic use, activity, dosage and adverse effects of Commonly Used drugs	Students acquire knowledge about Antipyretics, analgesics, diuretics, anti-inflammatory drugs and antidiabetics.
			CO5: HIV-AIDS	Student’s gains awareness on HIV-AIDs, causes, prevention, tests, treatment and antiretroviral drugs.

## DEPARTMENT OF HOME SCIENCE

S.No.	Paper Code	Paper Title	CO	Course Outcomes
1	1341	HSC 101- PSYCHOLOGY & PERSONALITY DEVELOPMENT	CO1	Understanding of various psychological processes underlying human behavior and its core concepts.
			CO2	Understanding of basic cognitive process of learning , memory and forgetting
			CO3	Grasp the importance of emotions, motivation, emotional intelligence in shaping personality
			CO4	Stimulate the student to think, introspect and work on to develop their Personality
2	1342	HSC 102 - HUMAN PHYSIOLOGY	CO1	Learn about the structure ,functions of cell, classification of bones and joints, function of nervous system
			CO2	Get awareness about functions of various organs in digestive system, kidneys, and mechanism of urine formations.
			CO3	Understanding of structure and functions of heart, composition and functions of blood,
			CO4	Understanding reproductive systems, endocrine glands, and role of hormones
3	1343	HSC 103 - HEALTH HYGIENE & MICROBIOLOGY	CO1	Acquire knowledge about Dimensions, Determinations & Indicators of Health
			CO2	Learn classification ,growth, nutrition and reproduction of various microorganism
			CO3	Know about Hygiene & its importance in daily life methods of sterilization & disinfections
			CO4	Will gain basic understanding of Injection, Immunity & Immunization Schedule
4	2341	HSC 201- INTRODUCTION TO HUMAN DEVELOPMENT	CO1	Gain the Knowledge of Definitions and interdisciplinary nature, Scope, Domains and stages Human of development.
			CO2	Understand Concepts and Principles of growth Role of Heredity and Environment in Human development, Stages of Life span – Developmental tasks are learned.

			CO3	Will gain knowledge about Prenatal development – stages, Pregnancy - signs and symptoms, Care during pregnancy
			CO4	To get awareness about Stages of delivery & types of birth, Care of new born baby, Reflexes and Stimulation.
5	2342	HSC 202 BIOCHEMISTRY	CO1	Understand the importance of biochemistry as the basis for nutrition.
			CO2	Understand chemistry of major nutrients and physiologically important biomolecules.
			CO3	Learn about macro nutrients in terms of their composition, properties, classification, and metabolism
			CO4	Comprehend on properties, classification, nature and mode of action, and factors affecting enzyme activity.
6	2343	HSC 203 BASIC NUTRITION	CO1	Understanding of role of macro nutrients, sources, and functions deficiency disorders & clinical manifestation
			CO2	Learn the role of Vitamins their food sources ,function & deficiency diseases
			CO3	Students will learn minerals-series, function & deficiency diseases of them.
			CO4	Learn knowledge about energy value of food, energy requirements of the body
			CO5	Understand the interrelationship between of food, nutrition and health
7	3341	HSC 301 FOOD SCIENCE	CO1	Understand the basic concepts of food science its applications in processing of food.
			CO2	Learn the importance of the food groups its classification, food pyramid and phytonutrients.
			CO3	Comprehend the details of structure, composition, nutritive value and processing of various food groups- cereals, pulses, fruits, vegetables etc.

			CO4	Understand the methods of food preparation in terms nutrient retention and losses and ways to improve the nutritional value of food
8	3342	HSC 302 HOUSING FOR BETTER LIVING	CO1	To gain knowledge about importance, types and function of house.
			CO2	Understand the principles, orientation site and factor to be considered in planning a house.
			CO3	Awareness in designing space, practical considerations about water supply, electricity, plumbers and drainage facilities.
			CO4	Understanding about financial -bank schemes of state & central government.
			CO5	Get awareness of safety measures to be taken in home.
9	3343	303- TEXTILE FIBERS AND FABRIC	CO1	Understand the importance of textile fibers Classification, general properties of various fibers.
			CO2	Learn about composition, manufacturing process, properties and uses of Natural fibers and artificial fibers in detail.
			CO3	Understanding the process of yarn construction, spinning and its classification.
10	4341	HSC 401 FOOD PRESERVATION AND PROTECTION	CO1	Learn about causes and factors affecting food spoilage a
			CO2	Understand basic principles and methods of food preservation
			CO3	Comprehend on Food Adulteration its types, harmful effects and ways to identify
			CO4	Learn about food laws and standard and general principles in the use of food additives.
11	4342	HSC 402 INTERIOR DECORATION	CO1	understanding about importance of elements in Interior Design
			CO2	Learn about elements of art, colours schemes, principles of design and their application in home.

			CO3	Learn about arrangement, care and maintenance of accessories and furniture
			CO4	Learn about types of flower arrangement, selections and preservation of flowers by different methods
12	4343	403-CLOTHING CONSTRUCTION	CO1	Learn about the introduction, different methods of fabric construction- weaving, Knitting and felting.
			CO2	Understand about Aims, kinds and classification of different finishes.
			CO3	Gain the Knowledge and skill in garment construction.
13	5341	HSC 501 FAMILY DYNAMICS	CO1	Learn about importance of family and its types
			CO2	Understands the importance of stages of family life cycle
			CO3	Learn about problem and adjustments' in marriage, sex, finance and in laws in family life
			CO4	Understand the importance functions, factors to be considered in different types of marriage.
			CO5	Understanding of legal aspects of marriage and family
14	5342	HSC 502 - LIFE SPAN DEVELOPMENT	CO1	Understanding basic concepts, stages of human life
			CO2	Learn about different areas of development from infancy to adolescence.
			CO3	Understand the importance, characteristics, Identity development and problems of Adolescence.
			CO4	Comprehend the role of Family, School and Peer on overall development of children
15	5343	503-TEXTILE FINISHES	CO1	Develop knowledge and skill in finishing of fabrics in Dyeing and Printing.
			CO2	Gain knowledge of Traditional Textiles of India and Indian embroidery
			CO3	Understand about selection of clothing for different age groups
			CO4	Learn principles of laundering, reagents, stain removal and dry cleaning

16	5344	HSC 504.CONSUMER BEHAVIOUR AND ECONOMIC	CO1	Gain knowledge about basic terminology, concepts, human wants and standard of living.
			CO2	Get awareness on sources, types, functions, supplementing its family income
			CO3	Awareness on money management in the home
			CO4	Student will learn the importance, types of savings and investment.
17	5345	HSC505 FAMILY AND COMMUNITY NUTRITION	CO1	understand the importance and planning of balanced diet for family and community
			CO2	Learn about nutritional requirement during pregnancy and lactation
			CO3	Gain knowledge about nutritional requirement during childhood, adolescence and old age.
			CO4	Learn about methods of nutritional assessment and role of national and international organization in developing nutritional status of the community
18	5346	506-HOME SCIENCE EXTENSION	CO1	To understand the concept of extension and communication its relevance for self & national development.
			CO2	Learn the importance of Teaching and Learning Process, Steps and Principles of Extension teaching, formal and informal education.
			CO3	To gain knowledge about Classification, Factors affecting selection and use of different Extension teaching methods
			CO4	Will gain Concept, Elements and functions principles and barriers of Communication.
19	6341	HSC 601 THERAPEUTIC NUTRITION	CO1	Understand principles of therapeutic nutrition, Modify the normal diet for therapeutic purposes and special feeding method.
			CO2	Learn the nutritional requirement and intervention in under and over nutrition
			CO3	Understand the etiology, clinical features and dietary management in common disorders and diseases like GI, CVD, Kidney and liver etc.

			CO4	Understand the role and responsibilities of dietitian and significance of dietary counseling.
7	6342	HSC 602-FASHION DESIGN AND MERCHANDISE	CO1	To get awareness on Fashion terminology, Factors influencing fashion, Fashion cycles and Fashion adoption theories
			CO2	Understand the principles and elements of design and croqui.
			CO3	Role and responsibility of the merchandiser principles and factors influencing merchandising practices are learned.
			CO4	Understand the importance of merits and demerits of readymade clothing, care and storage of clothes.
	6343	HSC 603. Entrepreneurship Management	CO1	Learn the importance characteristics, role and types of entrepreneurship
			CO2	Learn about stages of entrepreneurship development
			CO3	Learn about idea generation and opportunities Assessment
			CO4	Understand the steps in setting up a new enterprise
	6344	HSC 604 A EARLY CHILDHOOD EDUCATION	CO1	Enlighten students about need, importance and objectives of early childhood education
			CO2	Learn about various types of preschools- Nursery, Kindergarten and need and requirement for establishing preschool
			CO3	Learn about types of curriculum and plan theme based curriculum planning for preschool.
			CO4	Understand about play way method and types play equipments in ECE center. Learn importance of home school relation in child's development
	6345	HSC 604 B SOCIOLOGY	CO1	To gain the concept of sociology its importance with other social sciences, society and culture
			CO2	Understanding the types, agents, agencies and stages of socialization

			CO3	Learn about classification, characteristics of different social groups
			CO4	Understanding different features, characteristics of village and urban community
			CO5	Get awareness about problems of women in modern India.
8	6346	HSC 604C- COMMUNITY DEVELOPMENT	CO1	Get awareness about definitions, principles of community development.
			CO2	Gain knowledge about the role of leader, leadership styles, types and methods.
			CO3	Understand the elements of diffusion, adoption and participatory rural appraisal techniques.
			CO4	Get awareness about the developmental programmes in India.

## DEPARTMENT OF MATHEMATICS

S.NO.	Paper Code	Paper Title	CO	Course Outcomes
1	1221	Differential Equations	CO1	Understand how to differentiate linear and non-linear Differential Equations
			CO2	understand some basic definitions, Find the envelopes and orthogonal trajectories of the family of different surfaces
			CO3	Understand How to resolve the differential equations into rational and solve it.
			CO4	Solve equations for p, x and y, explain Clairaut's equation
			CO5	To find solution of higher-order linear differential equations with variable coefficients, Solves the Cauchy-Euler equations

2	2221	Three Dimensional Geometry	CO1	Understand geometrical terminology for angles, triangles, quadrilaterals and circles, measure angles using a protractor, use geometrical results to determine unknown angles
			CO2	Define parallel lines, Recognize and create parallel lines on graphs and with equations, define perpendicular lines, Recognize and create graphs and equations of perpendicular lines
			CO3	Understand the equation of the tangent plane and use the tangent plane as a local linear approximation to the surface
			CO4	Understand how to use cylinder and cone, Identify the shape of the surface of a cylinder and cone, Measure the surface area of a cylinder and a cone, finding volume of a cylinder and cone
3	3221	Abstract Algebra	CO1	Trained in the Basic concepts of Groups, Subgroups
			CO2	Apply the learned concepts to Normal subgroups, Homomorphism and Cyclic groups
			CO3	Attain knowledge in Rings, Sub rings, Ideals
			CO4	Further learn Isomorphism and polynomial rings
4	4221	Real Analysis	CO1	Understand the concepts of limits, Continuity, Discontinuity, Uniform Continuity
			CO2	Analyze Derivatives and apply Mean value Theorems
			CO3	Understand the Concept of Sequences and Series and interpret series Tests
			CO4	Identify Riemann Integral functions
			CO5	Applicable for our professional, social and intellectual lives.

5	5221	Linear Algebra and Vector Calculus	CO1	Vector Spaces, Sub Spaces, Linear Combination, Dimension of Vector Space and Subspace. Definitions, Operations on vectors and scalars
			CO2	Rank and Nullity of Linear Transformations, Invertible Linear Transformations. Ordinary derivatives of vectors, Continuity, Gradient, Divergence, Curl
			CO3	Sylvester's Law of Nullity and Cayley Hamilton Theorem. Vector Integration
			CO4	Inner Product Spaces.
6	5222	Ring Theory and Vector Calculus	CO1	Understand the concepts of vectors and scalars and will be able to perform the calculations on dot, cross and triple products
			CO2	Understand space curves and partial derivatives of vectors as well perform calculations on gradient t, divergence and curl operators.
			CO3	Analyze line, surface and volume integrals and estimate the change of order of integration as well as the change of variable in double integration Green's Theorem in a plane, Gauss Divergence theorem, Stokes theorem & Applications of these theorems.
			CO4	Understand the application of Green's Gauss and Stokes theorems
7	6221	Numerical Analysis	CO1	Analyze and detect different form of errors and also will be able to solve Algebraic and Transcendental equations using different methods
			CO2	Interpolate the functions within the range using equally and un equally spaced points

			CO3	Upon completion of this module the student should : 1.Understand the Least Squares Method 2.Be able to curve fit data using several types of curves(straight line, second degree parabola, power curve, exponential curve) 3.Obtain numerical approximations to the first and second derivatives of certain functions 4.Calculate a definite integral using an appropriate numerical method
			CO4	To solve the solution of a linear system of equations using direct or iterative methods
			CO5	To solve the selected class of differential equations using Taylor, Picards, Euler's, Runge Kutta, Adams and Milne's
8	6222	Integral Transforms	CO1	Applications of Laplace transforms to Differential Equations
			CO2	Applications of Laplace transforms to Integral Equations
			CO3	Applications of Fourier Transforms
			CO4	Applications of Finite Fourier Transforms.
9	6223	Advanced Numerical Analysis	CO1	Curve Fitting
			CO2	Numerical Differentiation
			CO3	Numerical Integration
			CO4	Solution of simultaneous Linear system of Equations
			CO5	Numerical solution of ordinary differential equations
10	6224	Project work	CO1	Communicate mathematics effectively.
			CO2	Demonstrate a computational ability in solving a wide array of mathematical problems

			CO3	Differentiate between valid and invalid mathematical reasoning
			CO4	Develop mathematical ideas from basic axioms, Utilize mathematics to solve theoretical and applied problems
			CO5	Identify applications of mathematics in other disciplines and in society

## DEPARTMENT OF PHYSICS

### COURSE OUTCOMES (MATHEMATICS COMBINATION)

S.No.	Paper Code	Paper Title	CO	Course Outcomes
1	1231	Mechanics & Properties of matter	CO1	Understand the physical significance of gradient of scalar field, divergence and curl of vector field. Applications of Gauss's & Green's theorems.
			CO2	Understand the working of multi stage rockets, collisions in 2D & 3D. Concept of Rutherford's scattering experiment and its importance.
			CO3	Knowing and applying Euler equations. Analysis of precessional velocity of symmetric top.
			CO4	Basic understanding of central force with examples. Verification of Kepler's laws, application to Planetary system.
			CO5	Understanding the concepts of relativity, frame of reference, Lorentz transformations, length contraction and time dilation.
2	2231	Waves & Oscillations	CO1	Analyzing the Simple Harmonic Motion, characteristics. Determination of acceleration due to gravity "g" by Compound pendulum & rigidity modulus by Torsion pendulum.
			CO2	Apply the concept of damping to determine logarithmic decrement & quality factor. Differential equation of forced harmonic oscillator and its equation and applied in daily life.
			CO3	Analyze the periodic functions like square wave, Saw tooth wave by using Fourier's theorem.
			CO4	Basic understanding of Ultrasonics, different production methods and applications
3	3231	Thermodynamics & Wave optics	CO1	Understanding the basic concepts of Thermodynamics and the kinetic theory of gases, transport phenomenon.
			CO2	Knowing the thermodynamic potentials and deriving the Maxwell's equations, and their application to different thermodynamic systems.
			CO3	Knowledge of interference and its applications.
			CO4	By the end of this course the students will be able to understand the concept of aberrations, their importance in camera and other lens systems.

4	4231	Radiation Physics & optics	CO1	Understand the concept of low temperature Physics and its applications.
			CO2	Knowing different laws and formulae in Quantum theory of radiation. And measurement of radiation by using different Pyrometers.
			CO3	Knowledge of diffraction and basic understanding of Holography.
			CO4	Understanding the polarization and different methods of conversion of unpolarized light into polarized light. Basics of Fiber optics.
5	5231	Electricity, Magnetism & Electronics.	CO1	Understand the Gauss's law and its applications of electrostatics & basics of dielectrics.
			CO2	Analyze the electric & magnetic fields and understand the Biot savart's law and apply it to long straight wire & solenoid.
			CO3	Review the basic laws of electricity and magnetism, derivation of Maxwell equations and analyze the production of electromagnetic waves.
			CO4	Understand the basic concepts of electronics, working of p-n junction diodes and analysis of transistor configurations.
6	5232	Modern Physics	CO1	Understand the evolution of atomic models spectra of different elements, the effect of electric and magnetic field on the spectra.
			CO2	Understand the properties of the nucleus and the models associated with it.
			CO3	The theories behind the alpha and beta decays. Different detectors used to detect alpha, beta & gama radiations.
			CO4	Basic understanding of the crystal structure and also experimental study of it.
			CO5	Understanding the basic theories of superconductivity.
7	6231	Renewable energy	CO1	Basic knowledge of different forms of energy resources and its role in economic development.
			CO2	Study of the effects of environmental degradation, global warming, nuclear power generation.
			CO3	Knowledge on Solar, Wind, Ocean, Hydrogen energy conversions.
			CO4	Analysis of conversion of bio mass into fuels, biomass plants types and design.

8	6232	Solar Thermal and Photovoltaic aspects	CO1	Study the basics of solar radiations and solar intensity measurements.
			CO2	Understanding the classification, design and performance parameters of concentrating collectors.
			CO3	Analyze the fabrication of different types of solar cells.
9	6233	Wind, Hydro & Ocean energies	CO1	Introductory knowledge of wind generation, meteorology of wind. Types and classification of wind energy convertors.
			CO2	Understand the construction and working of wind turbine and its characteristics.
			CO3	Understand the technology process of Ocean, thermal and tidal energy conversion.
10	6234	Energy Storage devices	CO1	A thorough understanding of different modes of energy storage.
			CO2	Analyze different types of electro chemical energy storage systems.
			CO3	Understanding of difference between and fuel cell components, principle and it's working.
			CO4	Knowledge of different types of fuel cells and the problems with fuel cells and their applications.

**DEPARTMENT OF PHYSICS**  
**COURSE OUTCOME(NON-MATHEMATICS)**

S.No.	Paper Code	Paper Title	CO	Course Outcomes
1	1232	Mechanics, Waves & Oscillations	CO1	Physical significance of gradient of scalar field, divergence and curl of vector field. Applications of Gauss's & Green's theorems.
			CO2	Understand the principle of rockets propulsion, collisions in 2D & 3D. Concept of Rutherford's scattering experiment and its importance..
			CO3	Analyzing the Simple Harmonic Motion, characteristics. Determination of acceleration due to gravity "g" by Compound pendulum & rigidity modulus by Torsion pendulum
			CO4	Apply the concept of damping to determine logarithmic decrement, quality factor. Differential equation of forced harmonic oscillator and its equation.
2	2232	Mechanics, Waves & Oscillations	CO1	Basic understanding of central force with examples. Explanation of Planetary motion- Kepler laws, application to Planetary system.
			CO2	Understanding the concepts of relativity, frame of reference, Lorentz transformations, length contraction and time dilation.
			CO3	Knowledge of acoustics, classification of sounds and characteristics of musical sound.
3	3232	Thermodynamics & Wave optics	CO1	Understanding the basic concepts of Thermodynamics and the kinetic theory of gases.
			CO2	Knowledge of interference, determination of wavelength of light-Newton rings.
			CO3	By the end of this course the students will be able to understand the concept of aberrations, their importance in various lens systems.
			CO4	Understand the different thermoelectric effects in thermoelectricity.
4	4232	Radiation Physics & optics	CO1	Understand the concept of low temperature Physics and its applications.
			CO2	Knowledge of diffraction and basic understanding of Holography.
			CO3	Understanding the polarization and different methods of conversion of Unpolarized light into polarized light. Basics of Fiber optics.

5	5231A	Electricity, Magnetism & Electronics.	CO1	Understand the Gauss's law and its applications of electrostatics, basics of dielectrics & capacitors.
			CO2	Analyze the electric & magnetic fields and understand the Biot savart's law and apply it to long straight wire & solenoid with no derivation.
			CO3	Understand the basic concepts of electronics, working of p-n junction diode, transistor configurations and logic gates.
6	5232A	Modern Physics & Medical Physics	CO1	Understand the basic concepts of spectroscopy-Raman effect.
			CO2	Knowledge of fundamentals of Quantum mechanics-Photoelectric effect, Compton effect and its applications.
			CO3	Basic understanding of the radioactive emission, carbon and uranium grating, applications of isotopes.
			CO4	Analyze the crystalline materials, diffraction of X-rays and superconductors.
7	6231A	Renewable energy	CO1	Basic knowledge of different forms of energy resources and its role in economic development.
			CO2	Study of the effects of environmental degradation, global warming, nuclear power generation.
			CO3	Knowledge on Solar, Wind, Ocean, Hydrogen energy conversions.
			CO4	Analysis of conversion of bio mass into fuels, biomass plants types and design.
8	6232A	Solar Thermal and Photovoltaic aspects	CO1	Study the basics of solar radiations and solar intensity measurements.
			CO2	Understanding the classification, design and performance parameters of concentrating collectors.
			CO3	Analyze the fabrication of different types of solar cell.
9	6233A	Wind, Hydro & Ocean energies	CO1	Introductory knowledge of wind generation, meteorology of wind. Types and classification of wind energy convertors.
			CO2	Understanding the construction and working of wind turbine and its characteristics.
			CO3	Understand the technology process of Ocean, thermal and tidal energy conversion.

## DEPARTMENT OF ZOOLOGY

S.No.	Paper code	Paper Title	CO	Course out comes
1	1311	ANIMAL DIVERSITY OF INVERTEBRATES	CO1	Identify and classify invertebrate organisms from Protozoa to echinodermata.
			CO2	Students will gain Dissection skills
			CO3	Compare different systems in invertebrates.
2	2331	ANIMAL DIVERSITY OF VERTEBRATES	CO1	Students will be able to classify the different vertebrate organisms
			CO2	Compare different systems in vertebrates.
			CO3	Students will gain Dissection skills in vertebrates
3	3331	CYTOLOGY, GENETICS AND EVOLUTION	CO1	Identify various cellular organelles and describe their structure and function. Explain the structure and Functions of cell wall
			CO2	Understanding basic principles of inheritance and Analysis of Mendelian inheritance in man
			CO3	Mechanism of cell division and chromosomal segregation and slide
			CO4	Understanding about the concept of Evolution.
4	4331	EMRYOLOGY PHYSIOLOGY AND ECOLOGY	CO1	Understand about the various stages in development starting from zygote to an adult.
			CO2	Identify stages of development in an embryo
			CO3	Describe the physiology of basic processes in human body
			CO4	Advanced degree programs in Ecology can lead to a career as a veterinarian, zoologist, university professor or independent research
5	5331	ANIMAL BIOTECHNOLOGY	CO1	Explain the importance of Biotechnology in daily life
			CO2	Students can get knowledge on various methods developed for transgenic organisms.
			CO3	Can gain interest in forensic science, as they can get good knowledge on various blotting techniques.
6	5332	ANIMAL HUSBANDRY	CO1	Understand about the various stages in development of chicks and animals.

			CO2	Gain knowledge about various diseases in poultry and animal husbandry, their control measures.
			CO3	Can get knowledge in management of poultry farm and a animal husbandry unit
7	6331	IMMUNOLOGY	CO1	Have an awareness of current research in the field and possible applications of their knowledge in Immunology
				Basic understanding on key components of the innate and adaptive immune responses and insight into which cell types and organs are involved in an immune response.
				Explain the Role of Antigens & Antibodies in Immunity & understand Significance of antigen antibody reactions
			CO4	Differentiate between different Hypersensitivity states
8	6332	PRINCIPLES OF AQUACULTURE	CO1	Students can demonstrate the basic technical skills necessary for work in aquaculture and fisheries.
			CO2	Can gain good knowledge on various types of fishes and fish culture systems.
			CO3	Have awareness in construction of fish pond and can start their own fish pond.
9	6333	AQUACULTURE MANAGEMENT	CO1	Create local and global solutions to complex challenges in aquaculture and fisheries
			CO2	Can gain good feeding techniques and have knowledge on various feeding methods.
10	6334	POST HARVEST TECHNOLOGY	CO1	Have knowledge of impact of aquaculture and fisheries on society, the economy and natural environment
			CO2	Have awareness on various fish preservation and marketing methods

# DEPARTMENT OF COMPUTER SCIENCE & APPLICATIONS

## COURSE OUTCOMES

S.No.	Paper Code	Paper Title	CO	Course Outcomes
1	1211	Computer Fundamentals and Photoshop	CO1	Understand the computer, its characteristic, limitations and its usage.
			CO2	Analyze number system.
			CO3	Work with different input and output devices.
			CO4	Image edit, modify, background and saving using Photoshop.
			CO5	Work with tool box, layers and filters.
2	2211	Programming in C	CO1	Develop programs using the basic elements like control statements, Arrays and Strings. Solve the memory access problems by using pointers.
			CO2	Understand dynamic memory allocation using pointers which is essential for utilizing memory.
			CO3	Understand code reusability with the help of user defined functions and pointers.
			CO4	Develop programs using enumerated data types, function pointers and nested structures.
			CO5	Understanding the concept of files and implement the basics file handling mechanisms.
3	2212	Introduction To Data Science With 'R'	CO1	Develop programming abilities in R.
			CO2	Demonstrate proficiency in statistical analysis of data.
			CO3	Develop the ability to build and assess data based models.
			CO4	Execute statistical analysis with professional statistical software.
			CO5	Demonstrate skill in data management.
4	3211	Object oriented programming using java	CO1	To implement Object oriented programming paradigms using Java language.
			CO2	To implement multiple classes using Inheritance and how to access arrays and Strings in Java.
			CO3	Understand thread concept and use different methods to create threads.
			CO4	Understand exception handling concept and to create user defined exceptions.
			CO5	Analyze platform independent application runtime environment and choose appropriate runtime environment to create GUI and Web applications using Java language.

5	2531	Office Automation Tools	CO1	Office automation refers to the varied computer machinery and software used to digitally create, collect, store, manipulate, and relay office information needed for accomplishing basic tasks.
			CO2	Office automation can get many tasks accomplished faster.
			CO3	It eliminates the need for a large staff. Less storage is required to store data.
			CO4	Multiple people can update data simultaneously in the event of changes in schedule.
6	5211	Data Base Management Systems (B. Sc)	CO1	Understand the fundamental concepts of a database system.
			CO2	Analyze database requirements and determine the entities involved in the system and their relationship to one another.
			CO3	Develop the logical design of the database using data modeling concepts such as entity-relationship diagrams.
			CO4	Create relational tables from entity-relationship diagrams. Manipulate a database using SQL and develop programming skills in SQL and PL/SQL.
7	5531	Data Base Management Systems (BA)	CO1	Understand the fundamental concepts of a database system.
			CO2	Analyze database requirements and determine the entities involved in the system and their relationship to one another.
			CO3	Develop the logical design of the database using data modeling concepts such as entity-relationship diagrams.
			CO4	Create relational tables from entity-relationship diagrams.
			CO5	Manipulate a database using SQL and develop programming skills in SQL and PL/SQL.
8	5212	Software Engineering	CO1	Basic knowledge, understands, analyze and design of complex systems.
			CO2	Ability to apply software engineering principles and techniques.
			CO3	To produce efficient, reliable, robust and cost-effective software solutions.
			CO4	Ability to understand and meet ethical standards and legal responsibilities.

9	6211	Web Technologies	CO1	Use fundamental skills to maintain web server services required to host a website.
			CO2	Select and apply mark-up languages for processing, identifying, and presenting of information in web pages.
			CO3	Use scripting languages and web services to transfer data and add interactive components to web pages.
			CO4	Incorporate best practices in navigation, usability and written content to design websites that give users easy access to the information they seek.
10	6212	Foundation Of Data Science	CO1	Develop programming abilities in R.
			CO2	Demonstrate proficiency in statistical analysis of data.
			CO3	Develop the ability to build and assess data based models.
			CO4	Execute statistical analysis with professional statistical software.
			CO5	Demonstrate skill in data management.
11	6213	Big Data	CO1	Big data helps an organization understand its customers better, and helps it narrow down the target audience, thus improving their marketing campaign.
			CO2	Hadoop provides massive storage for any kind of data, enormous processing power and the ability to handle concurrent tasks or jobs.
			CO3	It provides high throughput access to application data and Hadoop Map Reduce provides YARN based parallel processing of large data sets.
			CO4	Map Reduce or YARN, are used for scheduling and processing. Hadoop Map Reduce executes a sequence of jobs and used for data warehousing.
12	6214	Data Analytics	CO1	Help mitigate risks from fraud for clients and organizations and also to make better decisions.
			CO2	Understand probability distribution, which provides the probabilities of occurrence of different possible outcomes in an experiment.
			CO3	It is the practice of extracting information from existing data sets in order to determine patterns and predict future outcomes and trends.
			CO4	This technology helps to manage the time with continuous innovations taking place in all aspects of lives.
13	6531	PHP & MY SQL	CO1	Working with MySQL databases and use PHP to Create, modify, and delete MySQL tables, manipulate MySQL records, retrieve database records.
			CO2	Use arrays over objects and array handling functions

			CO3	Use Hidden Fields to save state, Redirecting the user, Sending Mails, Working with File Uploads.
			CO4	Cookies enable to store the session information on the client side.
			CO5	Understanding the Image-Creation Process, Necessary Modifications to PHP, Drawing a New Image, Getting Fancy with Pie Charts, Modifying Existing Images.



*M.C. Lakshmi*  
8/1/2020

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