

ASD GOVERNMENT DEGREE COLLEGE (W)(A), KAKINADA

Curriculum & Its Relevance to
Local/Regional/National/Global Needs

Department: English

No. of Programmes offered: 03

ENG20101	A Course in Communication and Soft Skills (I Semester)	Global	The course enables the learners to recognise the importance of English in day-to-day situations, academics and professions at local and global levels and further use the language fluently and confidently. In addition, the course assists the students in deploying Soft Skills in their personal and professional lives to improve living standards and meet social needs.
ENG20201	A Course in Reading and Writing Skills (II Semester)	Global	The course enables the learners to understand and analyse various texts ranging from fictitious inputs to authentic materials connected to different spheres of life. The course also helps the learners to build a repository of active vocabulary and relate them to meet the purposes. In addition to its use in the above two areas, the course assists the learners in preparing their write-ups to meet the needs of their academics, social demands and professions.
ENG20301	A Course in Conversational Skills (III Semester)	Global	The course enables the learners to use English in social interactions, in Speeches or responses in academic, social, and professional presentations, interviews, and discussions accurately and fluently.

V. Ananta Lakshmi
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KAKINADA

Shrigothi
Lecturer Incharge
Department of English



**ASD GOVERNMENT DEGREE COLLEGE (W)(A),
KAKINADA Curriculum & Its Relevance to
Local/Regional/National/Global Needs**

Department: Telugu

No. of Programmes offered: 03

Course Code	Course Title	Local/ Regional /National/ Global	Relevance of the Course
TEL 20101	Pracheena Telugu Sahityan	Global	The course enables the learners to recognise the importance of the eligibilities of the administrator and the precautions to be taken while selecting the skilled persons in various fields as officers of the public welfare programmes to be undertaken by the administrator, the Good Governance Programme, the military welfare programs, etc.
TEL 20201	Aadhunika Telugu Sahityam	National	The course enables the learners to understand political and socio revolutions of 19 th century in India, Problems faced by artisans and farmers in India, systemic deficiencies etc. The course also helps the learners to understand various modern literary forms poetry, Short story, Novel, Drama, Criticism in Telugu.
TEL 20301	Srujanaatmaka Rachana	Global	The course enables the learners to develop creative writing skills and to use language skills. Writing skills can be expressed in a creative form, can take advantage of employment opportunities, acquire proficiency. The course also helps the learners to develop Communication skills, creative writing, translation, writing for Print and Electronic media.

V. Ananta Lalitha

Signature of the Principal

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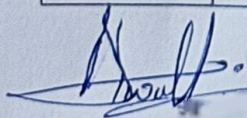
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ASD GOVERNMENT DEGREE COLLEGE (W)(A), KAKINADA
Curriculum & Its Relevance to
Local/Regional/National/Global Needs

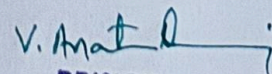
Department: Hindi

No. of Programmes offered: 03

HIN20103	Prose, Short Stories, Grammar and Letter Writing.	National	The course enables the learns to develop proficiency in reading, writing, speaking, and understanding the language. The Course enhances student's overall language skills and It also promotes cross-cultural understanding, empathy, and appreciation for linguistic diversity. Understanding Hindi idioms, expressions, and cultural nuances can strengthen student bonds with Hindi speaking individuals.
HIN20203	Prose, Short Stories, Grammar and Letter Writing.	National	Hindi prose and short stories helps student improve their language skills. This knowledge enhances their reading comprehension, writing proficiency, and overall command of the Hindi language. prose and short stories often reflect the cultural, social, and historical aspects of India. By studying these texts, students gain insights into the values, beliefs, and experiences of people from different regions and time periods.
HIN20303	Old & Modern Poetry, History of Hindi Literature	National	The course Hindi literature reflects the diverse cultural, social, and historical aspects of India. By studying Hindi literature, students gain a deep understanding of the values, beliefs, traditions, and experiences of different communities and time periods. It promotes cultural empathy, cross-cultural understanding, and appreciation for the rich literary heritage of India. This awareness helps them understand the evolution of Indian literature and its relationship with broader historical and social developments.

 (A. Swathi)

Incharge - Department of Hindi



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Local/Regional/National/Global Needs

Department: Sanskrit

No. of Programmes offered: 03

SAN20102	Old and Modern Poetry, Prose and Grammar	National	The Course enables learners to deepen understanding of Indian traditions, philosophies, and religious texts such as the Vedas, Upanishads, and Mahabharata. This knowledge can enhance students overall cultural awareness and appreciation. Student can improve overall language skills, including grammar, vocabulary, and syntax. This enhanced linguistic ability can be beneficial for students studying linguistics, literature, or even modern Indian languages.
SAN20202	Old and Modern Poetry, Prose and Grammar	National	The Course have profound personal benefits. It can enhance student's creativity, introspection, and ability to appreciate beauty in language and literature. It also encourages disciplined study, patience, and attention to detail. These qualities can contribute to personal growth and provide a well-rounded education. grammar provides a deep understanding of linguistic principles and structures. It explores the intricacies of sound patterns, word formation, and grammatical rules.
SAN20302	Drama, Upanishad, Alankara and History of Literature	National	Studying the drama and Upanishads, students can gain a deeper understanding of Indian culture, philosophy, and spirituality. The drama and Upanishads can foster ethical reflection and encourage students to contemplate and discuss fundamental questions of right and wrong, justice, and the purpose of life. They can analyse various genres of Sanskrit literature, such as epics, poetry, drama, and philosophical texts, and gain insights into the literary traditions that have shaped Indian literature.

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KAKINADA

Dl- Dept of Sanskrit

**A.S.D. Government Degree College for Women
(Autonomous), Kakinada**

Curriculum and its Relevance to Local/Regional/ National/ Global Needs

Name of the Department: HISTORY

No of Programmes offered by the Dept: 01

Total No. of courses across all programs offered by the department: 03

Note: If the same course is offered to two or three programmes, it has to be mentioned only once and needs to be counted only once. Only if the course is totally different, it has to be included in the following and needs to be counted.

B.A (HISTORY)

COURSE CODE	COURSE TITLE	Local /Regional/ National /Global	Relevance of the Course
HIS201101	Ancient Indian History & Culture (From Indus Valley Civil. to 13 Century A.D)	National	Identify and define various kinds of sources and understand how history books are shaped • Compare and contrast various stages of progress from IVC to Vedic age and analyse the Jain, Buddhist and Vedic faiths • Increase the awareness and appreciation of Transition from Territorial States to Emergence of Empires • Analyse the emergence of the Mauryan and Gupta empires during the “classical age” in India • Evaluate the key facets of ancient society, polity and culture in South India—the feudalism, and the rise of technology and commerce. • Critically examine the nature of monarchic rule and develop a comprehensive understanding of cultural evolution during ancient period • Visualize where places are in relation to one another through map pointing
HIS202101	Medieval Indian History & Culture (1206 A.D To 1764 A.D)	National & Regional	• Understand the socio, economic and cultural conditions of medieval India • Describe the advent of Islam in India and study the traces of political and cultural expansion of Turks & Afghans

			<p>policies of colonial administration towards these issues.</p> <ul style="list-style-type: none"> • Take pride in the non-violence struggle for Indian Independence and relate the important of peace in every life • Apply the knowledge of the regional history to understand the regional, linguistic and other cultural aspirations of the present-day society
HIS204102	History of Modern World (From 15th Cent. AD To1945 AD)	Global	<p>Demonstrate advanced factual knowledge of world histories, politics, and cultures</p> <p>Assess and appraise the developments in art, literature, and society during the Renaissance and utilize content knowledge of the Reformation and Counter Reformation to make predictions about the evolution of Christianity in Europe and abroad.</p> <p>Evaluate the causes for the Glorious Revolution and American Revolution and identify the background for the evolution of human rights movement. Understand the main events of the French Revolution and its significance in the shift in European culture from Enlightenment to Romanticise.</p> <p>Think how Russia's traditional monarchy was replaced with the world's first Communist state.</p> <p>Know how the world wars affected people all over the world and the destruction they caused.</p> <p>Develop the intellectual curiosity and habits of thought that will lead to life-long learning and continued engagement with European history, literature, culture, languages, and current affairs and acquire advanced international and intercultural competency through coursework in international studies.</p> <p>Visualize where places are in relation to one another through map pointing.</p>
HIS5101	Age of Rationalism and Humanism (the world	Global	<p>1. The student understands the Feudalism -Geographical Discoveries: Causes. How</p>

			5. Acquire Knowledge of UNO and its Functions
HCE21101	Cultural Tourism In Andhra Pradesh	Local & Region	<ol style="list-style-type: none"> 1. The student Understand the basic Concepts of Tourism 2. The student is Compare the types of Tourism 3. To Acquire Knowledge of History and Tourism Relationship 4. The student is developing the communication skills as the trainer of Tourist Guide. 5. Practical Knowledge about Field Trip
HCE21102	Popular Movements in Andhra Desa (1848 To 1956 A.D.) <i>(History and Culture of Andhra from 1857 to 2014)</i>	Local & Region	<ol style="list-style-type: none"> 1. The student understands the Socio Religious Movements in Andhra, special reference to Kandukuri Veeresalingam. 2. The student Observe the Vandemataram Movement in Andhra special reference to Arts College Incident 3. The student is Compare the three phases of Freedom Struggle in Andhra 4 Student is Aware on the Gandhian Period. 5. To analysis the separation of Andhra State and Formation of Andhra Pradesh.
HCE21103	Contemporary History Of Andhra Pradesh (1956-2014)	Local & Region	<ol style="list-style-type: none"> 1. The student Understand the Socio-Economic Changes in Andhra Pradesh – River Projects & Infrastructural Development-Regional Politics – Emergence of Telugu Desam Party. 2. The student is Compare the Growth of Leftist Ideology – Marxist & Radical Literature. Naxalbari Movement 3. To Acquire Knowledge of Dalit Movement, Struggle for Identity – Demand for Political Space. 4. The student acquires knowledge on Jai Telangana Movement (1969) – Mulki Rules – Legal Battle - Jai Andhra Movement (1972) – Six Point Formula (1973). 5. The student gains knowledge on Bifurcation of Andhra Pradesh: Power Politics- Telangana Rashtra Samiti – Movements for separate Telangana & unified Andhra Pradesh – Formation of Telangana State (2014).

V. K. S. R. J.
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T. M. V.
Lecturer in-charge,
Dept. of History.

**A.S.D Government Degree College for Women (Autonomous): Kakinada
Curriculum and Its Relevance to Local/Regional/ National/ Global Needs
2021-2022**

Name of the Department: **Economics**

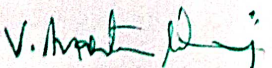
No of Programmes offered by the department : 3

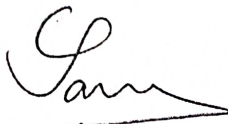
Total No. Of courses across all Programs Offered by the Department: 11

Programme	Course	Course Code	Local/ Regional/ National/ Global Needs	Relevance
BA	ECO201102	Microeconomic Analysis	Global	The concepts in micro economics are the heart of economics which explain determinants demand and supply of goods and services, market conditions and factor price theories. Price theory is relevant to understand any market be at global level, national, regional and local.
	ECO202102	Macroeconomic Analysis	Global	By the end of the course student should be able to explain various concepts, definitions, laws and principles of macroeconomic theory with reference to income, employment, money, banking and finance. This helps understand functioning of economy at macro level and thus the policy implications.
	ECO203102	Development Economics	Global	This course helps in understanding various concepts and definitions and indicators relating to economic growth and development. This further helps students to know various strategies for development and role of institutions in development. These concepts are important to understand factors that enable growth at global, national, regional and local levels.
	ECO404103	Economic Development-India And Andhra Pradesh	National	Concepts in economic development of India help students to know leading issues of Indian economic development with reference to potential for growth, obstacles and policy responses.
			Regional	Concepts in economic development of Andhra Pradesh help students to critically examine using data and figures (analysis and evaluation) leading issues of current importance relating to India and AP economy, major policies and programmes
			Local	With the help of concepts and theories understood at national and regional level students should be able to apply and understand the local economic situations.
	ECO404104	Statistical Methods For Economics	Global	Enrich the student's ability to analyze, interpret and present economic data

ECO5103	Economic Development And Indian Economy	National	Makes students understand theories of development which can be used to analyse Indian Economy growth and economic development issues.
ECO5104	Indian And Andhra Pradesh Economy	Regional	This Paper helps the students to know The Profile Of The Andhra Pradesh Economy.
		Local	After Understanding The Broad Economic Conditions Of The State , Student Should Be Able To Relate Those With The Local Conditions Like Kakinada Sez
ECO6102	Agricultural Economics	Global	Understands The Factors Affecting The Agricultural Development, Interdependence Between Agriculture And Industry,
		National	Impact Of Green Revolution On Indian Economy , The Policy Controls And Regulations Relating To Agro-Industries In India
ECE20104	Agribusiness Environment In Andhra Pradesh	Regional	After THE COMPLETION OF THIS COURSE STUDENTS WILL GAIN KNOWLEDGE ON THE CONCEPTS OF AGRIBUSINESS ENVIRONMENT IN Adhra Pradesh. Students FURTHER understands performance of agricultural in AP , know Backward and forward linkages of agriculture with the rest of the economy in andhra pradesh , know the agriculture credit, input market and product markets in Andhra Pradesh
		Local	Cropping And Livestock Sectors And Its Inter-Linkages, Performance, Export And Imports Of Agricultural Products , Various Legislations Relating To Agriculture Marketing In India.
ECE20105	Agricultural Output Marketing	National	Understand the Functioning Of Agricultural Marketing Organizations, know Marketing Of Various Agricultural Commodities. Able to examine issues in Inter-Regional And International Trade In Agriculture and WTO And Indian Agriculture
		Regional	Understand State Intervention In Agriculture Marketing, Problems And Challenges In Agriculture Marketing with special rfer3nce to Andhra Pradesh Economy and WTO And Indian Agriculture With Special Reference To Andhra Pradesh
PRJ20106E	Project Work	National / Regional And Local	Students Are Free To Choose An Area of interest where they are typically expected to take an economic issue and analyze it .

Signature of Head of the department


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Curriculum and its Relevance to Local/Regional/National/Global Needs

Name of the Department: Political Science

No of the programmes offered by the Dep: 01

Total No.of courses across all programs offered by the department: 03

B.A (Political science)(2021 – 2022)

Course code	Course Title	Local/Regional/National/Global	Relevance of the Course
POL202103	Introduction to Political Science	Global	Definition, Nature, Scope and Importance of Political Science. Divine Origin, Force, Evolutionary and Social Contract. Law, Liberty, Equality. Theories of Rights, Political Ideologies – Liberalism, Individualism, Anarchism, Socialism, Marxism etc....
POL201103	Basic Organs of the Government	Global & National	Constitution Meaning, Definition, Origin and Evolution of Constitution. Classification. Organs of the Government – Legislature, Executive and Judiciary powers and functions.
POL203103	Indian Government and Politics	Global & National	Social and Ideological base of the Indian Constitution. Individual and State – Fundamental Rights, Directive Principles Fundamental Duties. Union Executive – President of India, Prime minister, Council of ministers.
POL204105	Indian Political Process	National, Global & Regional	Federal Processes – Centre, state relations in Legislative, Administrative and Financial. Electoral Processes – The Election Commission of India, powers and functions. Electoral Reforms, Voting Behavior.
POL204106	Western Political Thought	Global	Ancient Greek Political Thought – Plato, Aristotle. Contractual Political Thought – Thomas Hobbes, John Locke, JJ Rousseau. Medieval and Modern Political Thought – St. Augustine, Niccole Machiavelli. Utilitarian Political Thought – Jeremy Bentham, J.S Mill. Marxist Political Thought – Karl Marx, Antonio Gramsci.

POL5105	Indian Political Thought	National	Traditions of ancient Indian political thought – Manu and Koutilya. Renaissance thought – Raja Ram MOHAN ROY, Panduit Ramabai. Early Nationalism – Dadabainouoroji M.G. Renadey. Religious Nationalism – V.D.Savarkar, Mohammed Iqbal. Democratic Egalitarianism – Gandhi, Nehru, Ambedkar, M.N. Roy
POL5106	Western Political Thought	Global	Ancient Greek Political Thought – Plato, Aristotle. Contractual Political Thought – Thomas Hobbes, John Locke, JJ Rousseau. Medieval and Modern Political Thought – St. Augustine, Niccole Machiavelli. Utilitarian Political Thought – Jeremy Bentham, J.S Mill. Marxist Political Thought – Karl Marx, Hegel.
POL6103	Local Self Government in A.P	Local & Regional	Evolution of Local self-Government in India – Balwantraj Mehta and Ashok Mehta Committees. 73 rd and 74 th AMENDMENTS. Grapanchayat, Mandala perished, Zillaparishad. Municipalities.
PCE21107	International Relations (CLUSETR-I)	Global	Basic concepts of International Relations – Balance of powers, National Interest, Diplomacy, Collective security. Approaches to the study of International Relations – Idealism, Classical Realism, and Neo Realism. Causes for the first and second world wars. Origin of first cold war, the role of UNO
PCE21108	Indian Foreign Policy (cluster-II)	Global	Determinants of Indian Foreign of policy. Continuity and change in Indian Foreign policy. Non alignment and UNO. India's Relation with USA and China. India and her Neighbors.
PCE21109	Contemporary Global Issues	Global	Concepts of globalization – Economic and politics concepts of globalization. Anchors of global political economy – WTO and World Bank. National state and globalization. Contemporary global issues – Ecological issues and International terrorism.

V. N. D.
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[Signature]
In-charge,
Dept. of Political Science.

A.S.D Government Degree College for Women (Autonomous): Kakinada
Curriculum and Its Relevance to Local/Regional/ National/ Global Needs
2021-2022

Name of the Department: **Commerce**

No of Programmes offered by the Department : 3

Total No. Of courses across all Programs Offered by the Department: 24

Programme	Course	Course Code	Local/ Regional/ National/ Global Needs	Relevance
B.Co m	FA201201	Fundamentals of Accounting	Global	Facilitates international business transactions through standardized financial reporting. Contributes to national economic growth and stability by ensuring reliable financial reporting Standardizes accounting practices within the region for better financial reporting. Provides skills for local businesses to maintain accurate financial records.
	BOM201202	Business Organization & Management	Global / National / Regional and Local	Facilitates the exchange of management practices and strategies in global business networks. Contributes to national productivity and competitiveness through effective business management. Enables regional businesses to establish effective management structures and optimize performance. Develops skills for local businesses to efficiently manage resources and organizational operations
	BE201203	Business environment	Global	Enables businesses to navigate global business environments and adapt to international trends Contributes to national policy-making and strategic planning for sustainable economic growth. Provides regional businesses with insights into the regional economic, social, and political landscape Assists local businesses in understanding and adapting to the local business environment
	FA202201	Financial Accounting	Global	Facilitates international business transactions through standardized financial reporting. Contributes to national economic growth and stability by ensuring reliable financial reporting Standardizes accounting practices within the region for better financial reporting. Provides skills for local businesses to maintain accurate financial records.
	BE202202	Business economics	Global	Enables businesses to understand and adapt to global economic changes and trends.(analysis and evaluation) Contributes to national economic policies and planning for sustainable development.
	BTP202203	Banking Theory &	National	Provides regional businesses with access to banking services and credit facilities.

	Practice		Equips local businesses with knowledge of banking services and financial transactions. Provides information to the stability and growth of the national banking sector.
AA203201	Advanced Accounting	Global	Enrich the student's ability to analyze, interpret and present various financial statements of trading and non-trading firms Provides skills for local businesses to maintain accurate financial records and In-depth study of complex accounting procedures
BS203202	Business statistics	Global	Makes students understand various tools and techniques useful for data collection & analysis, research methodology theories which can be used to analyze
MRK203203	Marketing	Global/ National / Regional and Local	This Paper helps the students to know Enables businesses to enter and compete in global markets through effective marketing strategies, branding and market expansion for domestic products and services. and capitalize on marketing opportunities within the region.
CA204201	Corporate Accounting	Global	Facilitates international business transactions through standardized financial reporting. Contributes to national economic growth and stability by ensuring reliable financial reporting Standardizes accounting practices within the region for better financial reporting. Provides skills for local businesses to maintain accurate financial records.
CMA204202	Cost & Management Accounting	Global	Facilitates knowledge on costing and pricing through standardized financial reporting. Standardizes accounting practices within the region for better financial strategies. Provides skills for local businesses to maintain accurate financial records.
IT204203	Income tax	National	Understand the income tax laws, regulations, and computation of taxable income., ncome tax assessment. Provides local businesses with in-depth knowledge of local income tax laws and ensures compliance and salaried people.
BL204204	Business Laws	National / Regional and Local	Students Are Free To Study of legal principles and regulations relevant to business operations and contracts. Educates local businesses on legal rights, obligations, and best practices in business operations Establishes a legal framework that governs business activities and protects stakeholders' rights. Facilitates international trade and business transactions by establishing legal agreements
AUD204205	Auditing	Global/ National	Study of auditing principles, techniques, and practices to ensure accuracy and reliability of financial information by establishing consistent auditing standards and practices
GST204206	Goods & Service tax	National/ Global	Study of GST laws, regulations, and compliance, including tax calculation and reporting. And effective GST implementation, including rate revisions and policy

			improvements. GST regulations, facilitating cross-border trade and GST compliance.
CBL5201	Business Leadership	Global	Exploration of leadership theories, strategies, and skills for effective business management
CA5202	Cost Accounting	Global/ National / Regional and Local	Facilitates international business transactions through standardized financial reporting. Contributes to national economic growth and stability by ensuring reliable financial reporting Standardizes accounting practices within the region for better financial reporting. Provides skills for local businesses to maintain accurate financial records.
GST5203	GST Fundamentals	National	Study of GST laws, regulations, and compliance, including tax calculation and reporting. And effective GST implementation, including rate revisions and policy improvements. GST regulations, facilitating cross-border trade and GST compliance
CG5204	Commercial Geography	Global/ National / Regional and Local	Study and Provides insights into the geographical factors that influence business activities and global trade.
PM5205	Purchase Management	National / Regional and Local	Study of principles and practices involved in purchasing goods and services for businesses, students in sourcing quality products and negotiating favorable terms with suppliers.
SM5207	Stores Management	National / Regional and Local	Exploration of effective management of inventory and storage systems in businesses, lay out and planning and effective implementation
PRJ5210	Project Work	Regional/ local	Students Are Free To Choose An Area of interest where they are typically expected to take inn retail marketing.
CT6201	Tally	Global	Equips students with practical skills in using Tally software for accounting and financial reporting.
MRK6202	Marketing	Global/ National / Regional and Local	This Paper helps the students to know Enables businesses to enter and compete in global markets through effective marketing strategies, branding and market expansion for domestic products and services. and capitalize on marketing opportunities within the region
AUD6203	Auditing	Global/ National	Study of auditing principles, techniques, and practices to ensure accuracy and reliability of financial information by establishing consistent auditing standards and practices
CMA6204	Management Accounting	Global	Facilitates international business transactions through standardized financial reporting. Contributes to national economic growth and stability by ensuring reliable financial reporting Standardizes accounting practices within the region for better financial reporting. Provides skills for local businesses to maintain accurate financial records.
ARM6205	Agricultural and Rural	National/ regional/rur	Provides insights into local agricultural markets and the unique marketing challenges in rural areas and marketing

	Marketing	al	strategies and practices specific to agricultural and rural sectors.
CWM6206	Warehouse Management	National / Regional and Local	Examination of principles and techniques for efficient warehouse operations. And knowledge on warehouse management
PRJ6207C	Commerce Project	Regional/ local	Students Are Free To Choose An Area of interest where they are typically expected to take in Rural Marketing

V. Ananta Lakshmi

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R. R. D. Bhisly

Signature of Head of the department

A.S.D.GOVERNMENT DEGREE COLLEGE (W) (A) ,KAKINADA

Curriculum and its Relevance to Local/Regional/ National/ Global Needs

Name of the Department: MATHEMATICS

No of Programmes offered by the Dept: 2

Total No. of courses across all programs offered by the department: 09

BSC (M.P.C ,M.P.C's)

COURSE CODE	COURSE TITLE	Local /Regional / National /Global	Relevance of the Course
MAT203 101	DIFFERENTIAL EQUATIONS	LOCAL	Efficiency in Differential Equation provides a chance to students for getting opportunity for teaching fields .Differential Equation is a course in mathematics has applications is physical sciences ,biological sciences and other engineering technical subjects also .The derivatives of the function define the rate of change of a function at a point.
MAT203 201	SOLID GEOMETRY	GLOBAL	Geometry is the branch of mathematics that deals with shapes, angles, dimensions and sizes of a variety of things we see in everyday life. Solid geometry is essential for engineers and architects in designing and constructing buildings , bridges ,roads ,and other structures. Solid geometry forms the foundation of computer graphics and 3D modeling. It is utilized in various branches of physics and engineering sciences.it helps in analyzing and calculating the properties of solids ,such as their mass, density , center of gravity, and moment of inertia. Solid geometry is applied in medical imaging techniques like computed tomography (CT), magnetic resonance imaging (MRI), and ultrasound
MAT203 301	ABSTRACT ALGEBRA	GLOBAL	GROUP THEORY: Abstract algebra is a branch of mathematics that deals with algebraic structures and their properties in a general and abstract manner.

			<p>Abstract algebra plays a vital role in computer science, particularly in the field of algorithms and data structures. Concepts from abstract algebra, such as groups and rings, are used in cryptography, data compression, and error detection/correction techniques. Abstract algebra provides a powerful tool for mathematical modeling. By abstracting away specific details and focusing on general structures, mathematicians can model and analyze complex phenomena more efficiently. Abstract algebra is an essential subject in pure mathematics. It helps in understanding the fundamental structures and concepts that underlie many mathematical disciplines. It provides a rigorous foundation for algebraic geometry, number theory, topology, and other branches of mathematics.</p> <p>RING THEORY: Ring Theory is an extension of Group Theory, vibrant, wide areas of current research in mathematics, computer science and mathematical/theoretical physics. They have many applications to the study of geometric objects, to topology and in many cases their links to other branches of algebra are quite well understood.</p>
MAT20 4301	REAL ANALYSIS	GLOBAL	<p>Real analysis provides a rigorous and formal framework for studying calculus, which is fundamental to many branches of mathematics and science. It helps establish the logical foundations of calculus and provides a deeper understanding of concepts such as limits, continuity, derivatives, and integrals. Real analysis is essential for researchers in many scientific disciplines. It provides the mathematical tools and techniques needed for analyzing data, formulating mathematical models, deriving theoretical results, and interpreting experimental findings. Real analysis is particularly relevant in fields such as physics, engineering, economics, and computer science. In summary, real analysis is relevant and important because it forms the foundation for many advanced mathematical concepts, enhances critical thinking and problem-solving skills, and has broad applications in various scientific and technical fields.</p>

MAT204302	LINEAR ALGEBRA	LOCAL	Linear algebra is used to describe and solve problems related to vectors, matrices, and systems of linear equations in fields such as mechanics, electromagnetism, quantum mechanics, control systems, and signal processing. It provides a foundation for understanding concepts like vector spaces, eigenvalues, eigenvectors, and matrix operations, which are fundamental to many engineering and physical sciences applications. Linear algebra is used in economic models and financial analysis. Input-output models, optimization problems, and econometric models rely on linear algebra to represent and solve equations. Matrix algebra is utilized in portfolio optimization, risk assessment, and options pricing in finance.
MAT3501	NUMERICAL ANALYSIS	REGIONAL	Many mathematical problems cannot be solved exactly using analytical methods. Numerical analysis provides techniques to approximate solutions to such problems. Numerical analysis emphasizes error analysis, which is crucial for understanding the limitations and accuracy of numerical methods. It helps in quantifying the errors introduced during the approximation process and devising strategies to control and minimize them. Overall, numerical analysis provides the tools and techniques necessary for solving a wide range of mathematical and computational problems that arise in various fields...
MAT3602	SPECIAL FUNCTIONS	REGIONAL	Special functions are particular mathematical functions that have more or less established names and notations due to their importance in mathematical analysis, functional analysis, geometry, physics, or other applications. A special function, any of a class of mathematical functions that arise in the solution of various classical problems of physics. These problems generally involve the flow of electromagnetic, acoustic, or thermal energy. Functions can be used in real-life situations when an inputted value has a specific output value.

			For example, the distance a car has traveled (the output) is dependent on how long that car has been driving (the input)
MAT36 02	ADVANCED NUMERICAL ANALYSIS	REGIONAL	Numerical optimization techniques are essential for solving complex optimization problems, such as finding the optimal solution in engineering design, logistics, scheduling, and machine learning. These methods involve iterative algorithms that search for the best solution in a high-dimensional parameter space. Numerical methods are fundamental in data analysis and machine learning algorithms. Techniques such as regression analysis, optimization, interpolation, and numerical linear algebra are employed to analyze and extract insights from large datasets and train complex machine learning models. Advanced numerical techniques are widely used in financial modeling, option pricing, risk assessment, and portfolio optimization
AS303	ANALYTICAL SKILLS	GLOBAL	<p>Analytical skills are highly relevant in today's fast-paced and complex world. They refer to the ability to collect, analyze, and interpret information in order to solve problems and make informed decisions.</p> <p>Decision-making: Analytical skills help individuals evaluate different options, consider the potential outcomes, and make logical decisions based on data and evidence.</p> <p>Critical thinking: Analytical skills involve critical thinking, which is the ability to objectively assess information, question assumptions, and evaluate the validity of arguments or evidence. Overall, analytical skills are relevant in various aspects of life, including education, career development, problem-solving, and decision-making. They empower individuals to think critically, make informed choices, and navigate the complexities of the modern world more effectively.</p>

V. Mantha Lakshmi

PRINCIPAL

A.S.D. GOVT. DEGREE COLLEGE (W)
AUTONOMOUS
KAKINADA

K. Venkatesh

Signature of HOD



**A.S.D.GOV.T.DEGREE COLLEGE FOR WOMEN(AUTONOMOUS)
KAKINADA**

Curriculum and its Relevance to Local/Regional/National/Global Needs

Name of the Department: PHYSICS

No of Programmes offered by the Dept: 02

Total No. of courses across all programs offered by the department: 07

BSC (PHYSICS)

Course Code	Course Title	Local/Regional/National/Global	Relevance of the Course
PHY 201302	Mechanics, Waves & Oscillations	Global	The Newton's laws of motion and variable mass system are applications to rocket motion. Based on rotational kinematic relations, we can construct gyroscope. general characteristics of central forces and the application of Kepler's laws to describe the motion of planets and satellite in circular orbit through the study of law of Gravitation. Postulates of Special theory of relativity and its consequences such as length contraction, time dilation, relativistic mass and mass-energy equivalence. Ultrasonics used in the fields like medical, industries.
PHY 202302	Wave optics	Global	Study different properties of light i.e., Interference, diffraction and polarisation to understand the nature of light. Understand the basic principle of Lasers and their applications in the fields like medicine, defence, industries etc. Understand the basic principles of optical fibre communication and explore the field of Holography and Nonlinear optics and their applications.
PHY 203302	Heat and Thermodynamics	Global	The thermodynamic laws help us to calculate the efficiency of heat engines. The thermodynamic potentials help us in different types of chemical reactions. The low temperature physics help us in liquefaction of gases. Examine the concept quantum theory of radiation and its extension to Wein's law, Rayleigh-Jean's law.
PHY 5303	Electricity, Magnetism &	Global	Understand the Gauss law and its applications. Biot-Savart's law and Ampere's circuital law helps to describe and explain the generation of magnetic fields by electrical currents. Develop an understanding on the unification of electric and magnetic fields and Maxwell's equations governing

	Electronics		electromagnetic waves. Describe the operation of p-n junction diodes, Zener diodes, and transistors. Understand the operation of basic logic gates and universal gates and their truth tables.
PHY 5304	Modern Physics	Global	Atomic and Molecular Physics helps in quantitative studies of collisional interactions. Raman effect is used to study the vibration/rotational vibration state of molecules. Quantum mechanics and the uncertainty principle provide a more accurate description of the behaviour of particles at the microscopic level. Nuclear physics focuses on the study of atomic nuclei, their structure, and their interactions. Nano materials provide enhanced properties, tailored functionality, improved device performance, and versatile applications across various fields. Characteristics and properties have enabled advancements in technology, sustainability, and scientific understanding. Superconductivity have advantages such as zero electrical resistance, high current carrying capacity, magnetic levitation, efficient energy storage.
PHY 205303-6B	Low Temperature Physics & Refrigeration	Global	Illustrates production of low temperatures by using different methods. Different types of thermometers gives the measurement of low temperatures. The principles of refrigeration gives natural and artificial refrigeration methods. The components of refrigerator and its working gives idea about COP TR & EER. Applications of low temperatures gives preservation methods.
PHY 205304-7B	Solar Energy and Applications	Global	Components of solar energy gives the structure of Sun and forms of energy coming from the Sun and its measurement. Solar Thermal collectors gives knowledge on working of thermal and photovoltaic collectors. Understand testing procedures and fault analysis of thermal collectors and PV modules and Comprehend applications of thermal collectors and PV modules.

K. Venkatesh

Signature of HOD
 HOD, DEPARTMENT OF PHYSICS
 Department of Physics
 A. S. Govt. Degree College for Women
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V. Anantha Lakshmi

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**A.S.D. GOVT. DEGREE COLLEGE FOR WOMEN (AUTONOMOUS):
KAKINADA**

Curriculum and its Relevance to Local/Regional/ National/ Global Needs

Name of the Department: **Chemistry 2021-22**

No of Programmes offered by the Dept: BSC (MPC, CBMB, CBZ, CZAQ, CBHT)

COURSE CODE	COURSE TITLE	Local /Regional / National /Global	Relevance of the Course
CHE201303	Inorganic and Physical Chemistry	Global	The knowledge on the chemistry of p – block elements helps the students in their career development. The knowledge and understanding in various units in physical chemistry are helpful to grow in their academics and profession. This has global relevance where students can seek their career in the area of Chemists in Pharma and Chemical industries.
CHE201303P	Inorganic and Physical Chemistry Practicals	Global	The practical knowledge and skills in the qualitative analysis and preparation of chemical compounds are very useful to have more opportunities in the industrial sector.
CHE202303	Organic and General Chemistry	Global	This course helps the students to acquire knowledge in the area of organic chemistry and general chemistry like basic organic chemistry, hydrocarbons and aromatic compounds and chemical bonding, stereochemistry etc.
CHE202303P	Organic and General Chemistry Practical	Global	This course helps the students to have practical skills and to have industrial exposure.

CHE203303	Organic Chemistry and Spectroscopy	Global	This course helps the students to acquire knowledge and understanding in the reaction mechanisms in organic chemistry and the principles underlying the spectroscopic techniques. The applications of spectroscopy are helpful to deduce the molecular structures of organic compounds. This course has global relevance as most of the research in chemistry is based on spectroscopic techniques.
CHE203303P	Organic Chemistry and Spectroscopy Practical	Global	This course enables the students learn the basic concepts and practical knowledge in volumetric analysis.
CHE204304 & CHE204304P	Inorganic, Organic & Physical Chemistry		The theoretical knowledge and understanding in the course help the students to apply these in new situations. The reaction mechanisms in organic chemistry and the thermodynamic concepts are useful to explore their opportunities locally or globally. The conductometry and potentiometry are useful to determine the concentrations of the chemical compounds in solution.
CHE204305 & CHE204305P	Inorganic and Physical Chemistry	Global	The basic knowledge and understanding of coordination chemistry help the students to apply these concepts in day-to-day life. Chemical Kinetics and Phase rule help students to understand the rate law and reaction mechanisms. The qualitative analysis of organic compounds is helpful to identify the functional groups, to determine the melting and boiling points of organic compounds.
CHE5305	Inorganic, Organic and Physical Chemistry	Global	This course enables the students enrich their knowledge and understanding in Coordination chemistry, Carbohydrates, amino acids and Chemical Kinetics. The students are expected to develop skills in qualitative analysis of organic compounds and instrumentation techniques such as conductometry and potentiometry.

CHEM5306	Inorganic, Organic and Physical Chemistry	Global	This course is helpful to acquire knowledge on the applications of coordination chemistry and chemical kinetics. The practical skills developed in the students help them to have industrial career opportunities.
CHE6303	Environment al Chemistry	Global	This course is an interdisciplinary and helpful to the students to have awareness on the environment and environment pollution and the ways to control them. The practical skills in this area helps the students to have career opportunities in the industrial sector.
CCE20307	Polymer Chemistry	Global	This course enables the students to acquire knowledge and understanding the polymerization techniques and applications of polymers. The practical knowledge helps the students to grow their career in polymer and plastic industries.
CCE20308	Instrumental methods of analysis	Global	The instrumentation techniques like UV – Visible spectroscopy, IR Spectroscopy, NMR Spectroscopy etc. help the students to have bright career in industrial sector and also in research as most of the research is based on these techniques.
CCE20309	Analysis of Drugs, Foods, Diary products and Biochemical analysis	Global	The theoretical knowledge and understanding of the principles of the analysis are very helpful to develop their career in pharmaceutical, food and diary product industries.

(V. Mallikarjuna Sarma)

(Principal)

A.S.D. GOVERNMENT DEGREE COLLEGE FOR WOMEN(A)

Curriculum and its Relevance to Local/Regional/ National/ Global Needs

Name of the Department: Computer Science

No of Programmes offered by the Dept: 2

Total No. of courses across all programs offered by the department: 7

B.Sc.(Computer Science)

Course Code	Course Title	Local/Regional /National/Global	Relevance of the Course
CS201304	Problem Solving in C	Global	This course is aimed at enabling the students to formulate simple algorithms for arithmetic and logical problems. Translate the algorithms to programs in C language. Understand and use various constructs of the programming language such as conditionals, iteration, and recursion.
CS202304	Data Structures Using C	Global	This course helps to assess how the choice of data structures and algorithm design methods impacts the performance of programs. It enables the student to choose the appropriate data structure and algorithm design method for a specified application.
CS203304	Data Base Management System	Global	This course presents an introduction to database management systems, with an emphasis on how to organize, maintain and retrieve - efficiently, and effectively - information from a database. Helps in mastering the basics of SQL and construct queries using SQL. It also focuses on the relational database design principles.
CS3304	Object Oriented Programming Through Java	Global	Uses an integrated development environment to write, compile, run, and test object-oriented Java programs. It aids in developing

			interactive programs using Applets and Swings.
CS204308	Operating Systems	Global	This course introduces the core concepts of operating systems, such as processes and threads, scheduling, synchronization, memory management, file systems, input and output device management and security.
CS205307	Web Interface Designing Technologies	Global	It introduces the fundamentals of Internet, and the principles of web design. This course aids to construct basic websites using HTML and Cascading Style Sheets. Also helps to build dynamic web pages with validation using Java Script objects and by applying different event handling mechanisms.
CS205308	Web Applications Development Using PHP & MYSQL	Global	This course aims at the process of changing a static website into a dynamic website run from a database using PHP and MySQL. Used to analyze the basic structure of a PHP web application.

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A.S.D. GOVERNMENT DEGREE COLLEGE FOR WOMEN(A)
Curriculum and its Relevance to Local/Regional/ National/ Global Needs

Name of the Department: Computer Applications

No of Programmes offered by the Dept: 1

Total No. of courses across all programs offered by the department: 6

B.Com.(Computer Applications)

Course Code	Course Title	Local/Regional/National/Global	Relevance of the Course
IT201204	Information Technology	Global	This course aims to design, implement and evaluate a computer-based system, or process component, to meet the desired needs within the realistic constraints such as economic, environmental, social, political, ethical, health and safety, manufacturability, and sustainability.
EC202204	E-Commerce and Web Designing	Global	This course provides an introduction to information systems for business and management. It is designed to familiarize students with organizational and managerial foundations of systems, the technical foundation for understanding information systems. It also helps to to construct basic websites using HTML and Cascading Style Sheets.
PC203204	Programming with C & C++	Global	The course is designed for providing basic knowledge of C & C++. It aims at enabling the students to formulate simple algorithms for arithmetic and logical problems. Translate the algorithms to programs in C and C++ language.
DBMS5208	Database Management Systems	Global	This course presents an introduction to database management systems, with an emphasis on how to organize, maintain and retrieve - efficiently, and effectively - information from a database. Helps in mastering the basics of SQL and construct queries using SQL. It also focuses on the relational database design principles.

BDA205207	Big Data Analytics Using R	Global	This course is used to describe Big Data and its importance. Analyse the unstructured data and apply R programming concepts on it. Uncover key insights and create data-driven solutions for business challenges. Generate predictions based on the analysed data.
DSP205208	Data Science Using Python	Global	This Data Science using Python course gives a complete overview of Python's data analytics tools and techniques. Learning python is a crucial skill for many data science roles, and one can develop it with this Python data science course.

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**ASD GOVERNMENT DEGREE COLLEGE FOR
WOMEN(AUTONOMOUS):
KAKINADA**

Curriculum and its Relevance to Local/Regional/ National/ Global Needs

Name of the Department BOTANY

No of Programmes offered by the Dept: 03

Total No. of courses across all programs offered by the department: 11.

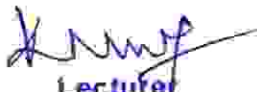
BSC (BOTANY)


COURSE CODE	COURSE TITLE	Local /Regional / National /Global	Relevance of the Course
BOT 201305	Fundamentals of Microbes & Non Vascular plants	Global	This course helps the students to understand about the basic and Fundamental concept of origin of life at molecular level and also the Diversity of Microorganisms and it helps the students to know about various kinds of diseases caused by different microorganisms and the ability of microorganisms to cause the diseases and thallus organization in Algal forms and the ecological roles of Algae as oxygen producers and as the food base for almost all aquatic life and evolutionary importance of origin of sporophyte in Bryophytes Students gets basic knowledge of Developmental significance of lower plants like Algae Fungi and Bryophytes
BOT 202305	Basics of Vascular Plants &Phytogeography	National	This course helps the students to understand about the structure and anatomical details of Pteridophytes Gymnosperms and gain basic knowledge about the Evolution of stele in Pteridophytes Students will procure knowledge of plant identification and keys to be followed in identification of various plants Basic aspects of Taxonomy Phylogenetic relationship between various plants and Systematic Taxonomy and Principles of ICBN Methods of preparation of Herbarium Economic Importance of Various families and basic principles of Phytogeography Students gain knowledge of plants in terms of their

			origin dispersal and evolution Study of this course helps the students to learn about how plants migrate and how they evolve migrating etc
BOT 203305	Anatomy & Embryology Ecology & Biodiversity	National	This course helps students to understand about the details Internal organization of shoot as well as Root Apical Meristem Importance of various kinds of Timbers, Embryology is the study of structure and development of embryo in plants It also helps the students to understand about the development of microsporangium Development of Kinds of Ovules and Embryogeny in Dicots and Monocots This course provides the insight into the genetic and environmental factors that effect the development of a plant Ecological Niche Biotic And Abiotic Factors Conservation strategies of Biodiversity
BOT 204309	Plant Physiology & Metabolism	National	This course helps the students to understand about various phenomena like osmosis and water potential Students can study variation and structure of plants at molecular and cellular level resulting in Ecological physiological and biochemistry related aspects of plant exploration It emphasizes on different steps involved in Plant respiration It enables the students to be aware of the importance of nutrients in the growth of Plants Students will be able to understand about the mechanism of Nitrogen Fixation and Role of Growth Regulators in the growth of the plant
BOT 204310	Cell Biology Genetics & Plant Breeding	Global	This Course helps the students to cellular organization in Plant cells It emphasizes on the importance of Chromosomal aberrations and Mendelian Inheritance. This Course gives the students an idea of Somaclonal Variation in plants Importance of Genetic Markers , It enables the students to learn about the objectives of Plant breeding and breeding techniques to be followed in improvement of Crop yield

			It is a skill based course through which students can develop knowledge about how to improve crop yield of the plants
BOT 5309	Cell Biology Genetics and Plant Breeding	Regional	This Course helps the students to cellular oraganisation in Plant cells It emphasizes on the importance of Chromosomal aberrations and Mendelian Inheritance. This Course gives the students an idea of Somaclonal Variation Importance of Genetic Markers , It enables the students to learn about the objectives of Plant breeding and breeding techniques to be followed in improvement of Crop yield It is a skill based course through which students can develop knowledge about how to improve crop yield of the plants
BOT 5310	Plant Ecology & Phytogeography	Regional	This Course enables the students to study about the effect of Various Biotic and abiotic factors on the growth of the plant and importance of Ecosystem and Biogeochemical cycles Students gain knowledge about principles of phytogeography Different Endemic Plant Species Continental drift theory and conservation strategies of Biodiversity basic principles of Phytogeography Students gain knowledge of plants in terms of their origin dispersal and evolution Study of this course helps the students to learn about how plants migrate and how they evolve migrating
BOT 6305	Nursery Gardening & Floriculture	National	This course is a skill based course and helps the students to understands about Nursery management Landscaping different Gardening Styles The main purpose of plant Nursery is to propagate and grow plants for sale to the public Nursery saves considerable time for raising of the next crop Students will be able to gain knowledge about various propagation techniques like Layering Grafting & Cuttings etc Students can gain knowledge about the

			cultivation practices of various ornamental Plants. This course emphasizes the importance of commercial floriculture
BCE 21313	Plant diversity & Human welfare	Regional	This course helps the students to learn about the concept and levels of Biodiversity. Students would gain knowledge on various organization involved in the conservation of Biodiversity. It emphasizes on the importance of Biopiracy and the values of Various plants useful for the mankind.
BCE 21314	Ethnobotany and Medicinal Botany	National	This course helps the students to learn about study of relationship between plants and humans and would be able to learn about Phytochemical significance of various medicinal plant products and conservation strategies of Endangered and Endemic medicinal plants and Red list data. Students will gain knowledge about various indigenous medicinal sciences like Ayurveda Siddha Unani systems of Medicine.
BCE 21315	Phytochemistry & Pharmacognosy	Global	Pharmacognosy is the branch of knowledge concerned with the different medicinal drugs obtained from plants or other natural resources. It is the systematic science of morphological, chemical, and biological properties along with History, cultivation, collection, extraction, Isolation, Bioassaying, Quality control, and preparation of crude drugs of natural origin. This course gives an awareness about the pharmacological actions of various Drugs and drug evaluation methods. Extraction of Alkaloids, Terpenoids, Phenolics, steroids, terpenoids and their origin and Importance. Students will gain knowledge about significance of Aroma therapy, Volatile oils etc.


 Lecturer
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A.S.D. GOVT. DEGREE COLLEGE FOR WOMEN (A), KAKINADA
DEPARTMENT OF ZOOLOGY & AQUACULTURE TECHNOLOGY
Curriculum and its Relevance to Local/Regional/ National/ Global
Developmental Needs

No of Programmes offered by the Department: 02

Total No. of courses across all programs offered by the Department: 13(Zoology)+ 11
(Aquaculture Technology) = 24

BSc (Subject: ZOOLOGY)

COURSE CODE	COURSE TITLE	Local/ Regional / National /Global	Relevance of the Course
ZOO201306	Animal Diversity Biology of Non-Chordates	Regional/ National/ Global	Study of the general characters and classification of non-chordates gives an overview of their diversity, distribution, Evolution, and significance in maintaining Ecological balance. This knowledge is very much important for protecting the biodiversity and understanding that man is an integral part of nature. The curriculum throws light on the economic importance of Invertebrates through topics like Parasitic life cycles, Preparation of vermicompost, Beneficial, and harmful insects, different kinds of animal associations etc. Practical imparts the skills such as identification of invertebrates by observing their morphological characters, for understanding feeding and reproductive habits etc.
ZOO202306	Animal Diversity Biology of Chordates	Regional/ National/ Global	The study of general characters and classification of Chordates gives knowledge of and their Morphology, distribution, Evolution, adaptations to lead life in various habitats etc. The knowledge of identification of poisonous snakes and first aid and medical support in case of poisonous snake bite helps to save the lives of many people. Components such as Migration in fishes & birds give the knowledge of their Ethological aspects under different circumstances.
ZOO20306	Cell Biology, Genetics, Molecular Biology and Evolution	Regional/ National/ Global	The concepts of Cell Biology such as cell structure, types and functions are very important as the cells are the fundamental structural and functional units of any organism. Genetics gives the knowledge of Mendel's laws of inheritance which became the foundation for various hybridization experiments and production of improved breeds of animals and plants. To understand the concepts like Gene Interaction, Polygenes, Sex determination, Sex linked inheritance, Chromosomal Disorders and human genetics is essential for the betterment of quality of life. This subject improves the problem-solving

			<p>abilities among the students.</p> <p>The basic concepts of Molecular Biology and their application have brought revolutionary changes in human lives. This has Medical, Pharma, food, Industrial applications. This has application in the production of transgenic animals, reproductive manipulations, Genomics and proteomics etc.</p> <p>Evolution helps to understand the principles, theories and forces of evolution, various isolation mechanisms that lead to speciation etc. The better we understand the nature the better we progress in a sustainable manner.</p>
ZOO204311	Physiology, Cellular Metabolism and Embryology	Regional/ National/ Global	<p>Physiology helps to understand the functional aspects of body such as Digestion, Respiration, Circulation, Excretion, Muscle contraction etc. This knowledge can be applied to understand the malfunctioning of the body and remedial measures to be taken.</p> <p>Cellular Metabolism gives the understanding about various biochemical metabolic reactions that take place at cellular level.</p> <p>Embryology gives the knowledge of concepts like gametogenesis, fertilization, embryonic development etc.</p>
ZOO204312	Immunology & Animal Biotechnology	Regional/ National/ Global	<p>Immunology gives the knowledge about the types of immunity, Antigen- Antibody reactions, Immune organs and cells, Hypersensitivity, Immune disorders etc. This branch of Zoology has wide applications in the field of medicine such as production and use of monoclonal antibodies, vaccines, stem cell Technology etc.</p> <p>Research in the field of Biotechnology has the potential to change the face of the world and fate of human beings. There is no area that is not touched by Biotechnology in the daily life. Provides placements at large scale in Pharma, medical diagnostics, and in research sectors.</p>
ZOO5311	Animal Biotechnology	Regional/ National/ Global	<p>Biotechnology gives the knowledge of manipulating microorganisms for the benefit of human beings. It gives the knowledge of gene cloning, cell, tissue and organ culture, Hybridoma Technology and production of monoclonal antibodies, production of genetically modified organisms etc. It Provides placement opportunities in Pharma, medical diagnostics, and in research sectors.</p>
ZOO5312	Animal Husbandry	Regional/ National/ Global	<p>Understanding and applying the concepts of Animal Husbandry fulfil the world's food security needs and give employment opportunities especially to the rural community. It gives ample opportunities in</p>

			allied industries like feed, pharma, medical, food processing etc. It helps the student community to become entrepreneurs.
ZOO6308	Immunology	Regional/ National/ Global	The concepts of immunology are helpful in global, national, regional, and local needs. Study of Immunology forms the basis to develop modern antibody therapies, stem cell therapies, vaccines, and cancer therapy. It lays foundation for understanding autoimmune and Immunodeficiency disorders.
ZCE21316	Principles of Aquaculture	Regional/ National/ Global	This course facilitates the students to identify the locally available edible aquatic species and cultivate them scientifically in the natural and artificial aquatic environments. Best management practices ensure the global food security, employment, and entrepreneurship opportunities.
ZCE21317	Aquaculture Management	Regional/ National/ Global	The curriculum has concepts like fish and shrimp hatchery management, Induced breeding, Pond preparation, Water quality, feed and disease management, Aquaculture economics, Marketing methods, production of genetically improved varieties etc. Students can enhance the skills of management of aqua farms through classroom instruction and field visits. Aquaculture provides plenty of employment as well as entrepreneurship opportunities.
ZCE21318	Post-Harvest Technology	Regional/ National/ Global	The curriculum of Post-Harvest Technology includes handling, preservation, processing, and preparation of fishery value added and by-products. These skills help the students to procure employment and entrepreneurial opportunities processing and export industries. The project work done by the students helps them to improve their practical knowledge of Aquaculture.
DT20207SB	Dairy Technology	Regional/ National/ Global	This skill Development course gives the knowledge of different breeds of dairy cattle, construction and management of dairy farm, reproductive manipulations that result in the improved varieties of cattle, Dairy cooperatives etc. The skills learned in this course provide employment and entrepreneurship opportunities.
PF20303S	Poultry Farming	Regional/ National/ Global	This skill Development course gives the knowledge of different breeds of poultry birds, construction, and management of poultry farm. The skills learned in this course provide employment and entrepreneurship opportunities.

BSc (Subject: AQUACULTURE TECHNOLOGY)

COURSE CODE	COURSE TITLE	Local/ Regional/ National /Global	Relevance of the Course
AQ201308	Basic Principles of Aquaculture	Regional/ National/ /Global	Aquatic ecosystems are highly dynamic where a greater number of species are living compared to terrestrial environment. The students of aquaculture must understand and gain knowledge about natural and artificial aquatic environments. Successful aquaculture practices depend upon proper management of aquatic environments. Thus, the curriculum provides knowledge to develop expertise in taxonomy and aquatic ecology.
AQ202308	Biology of Fin Fish and Shell Fish	Regional/ National/ Global	It is very important to know certain concepts like classification of cultivable species, their feed management, reproductive biology, growth factors and developmental aspects to understand the biology of cultivable species. these concepts provide deep knowledge to maintain healthy fish in culture ponds to get expected results in terms of profit and employability.
AQ203308	Fish Nutrition and Feed Technology	Regional/ National/ Global	Successful culture practices in aquaculture depends upon the management of quality feed formulation and supply the fish in culture ponds. This course provides the deep knowledge and understanding of different aspects related to fish and nutrition and feed management. This is one of the potential areas of aquaculture which can provide plenty of employment as well as business opportunities.
AQ204315	Freshwater and Brackish Water Aquaculture	Regional/ National/ Global	Fresh water and brackish water aquaculture practices have made many agrarian societies into premier aquaculture societies which reveals the fact that both the culture practices are highly potential sectors that can provide employment opportunities mainly in rural areas. Andhra Pradesh stands first for brackish water culture. The course freshwater and brackish water culture offers very good knowledge to students to learn the culture practices which is a very important component of aquaculture.
AQ204316	Fish Health Management and Fisheries Economics	Regional/ National/ Global	Fish health management is a term used in aquaculture to describe management practices which are designed to prevent fish disease. Once fish get sick it can be difficult to salvage them. By the concepts of diseases,

			<p>symptoms, diagnostic methods, treatments, prevention and control the student can become good entrepreneur and produce high yield. Prevention of fish disease is accomplished through good water quality management, nutrition, and sanitation. Without this foundation it is impossible to prevent outbreaks of opportunistic diseases.</p> <p>This course combines academics and economics in order to provide right kind of knowledge in fishery education and principles of economics to farmers, students, and entrepreneurs. This is a good paper that provides a platform to learn both fishery sciences and economics involved to develop aquaculture industry.</p>
AQ5315	Fish Health Management	Regional/ National/ Global	<p>Fish health management is a term used in aquaculture to describe management practices which are designed to prevent fish disease. Once fish get sick it can be difficult to salvage them. By the concepts of diseases, symptoms, diagnostic methods, treatments, prevention and control the student can become good entrepreneur and produce high yield. Prevention of fish disease is accomplished through good water quality management, nutrition, and sanitation. Without this foundation it is impossible to prevent outbreaks of opportunistic diseases.</p>
AQ5316	Fisheries Extension, Economics and Marketing	Regional/ National/ Global	<p>This course combines academics and economics in order to provide right kind of knowledge in fishery education and principles of economics to farmers, students, and entrepreneurs. This is a good paper that provides a platform to learn both fishery sciences and economics involved to develop aquaculture industry.</p>
AQ6308	Ornamental fishery	Regional/ National/ Global	<p>The concepts of types of ornamental fishes, aquarium Preparation and its management can give a scope of global applicability by the concept of commercial production of aquarium fishes can yield economic globally so by all these concepts a student can become an entrepreneur.</p>
AQCE21322	Fish Processing Technology	Regional/ National/ Global	<p>The concepts of Fish Processing Technology are applicable at global, national, regional and local areas to process and preserve aqua products in consumable form by the human population. Fish Processing Technology of Fish and Fisheries provides right knowledge in terms of handling, preservation, processing, and preparation of fish products.</p> <p>The skills acquired by students can offer various Employment and entrepreneurial opportunities in fishery or sea food industry.</p>

AQCE21323	Fishery Microbiology & Fishery By-Products II	Regional/ National/ Global	The concept of fish microbiology deals with the identification of microbes which are effecting the aqua farms student can gain the knowledge related to pathogens of aquatic organisms and can get employability in this field throughout the world. By the concepts of fish products and by-products students can become entrepreneurs as globally.
AQCE21324	Quality Control in Processing Plants	Regional/ National/ Global	The concepts of the quality control in processing plants such as quality management, quality assessment, quality testing by HACCP and SSOP along with quality inspection and hazards in sea-products can make student as an entrepreneur in the field of fish products exporting in world wise.

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**A.S.D. GOVERNMENT DEGREE COLLEGE FOR WOMEN (AUTONOMOUS),
KAKINADA**

Curriculum and its Relevance to Local/Regional/ National/ Global Needs

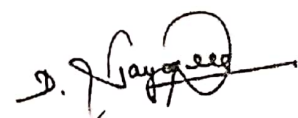
Name of the Department: **Microbiology**

No of Programmes offered by the Dept: **01**


Total No. of courses across all programs offered by the department: **11**

COURSE CODE	COURSE TITLE	Local/Regional/National/ Global	Relevance of the Course
MB201307	Introduction to Microbiology and microbial diversity	National/Global	The fundamental significance of Microbiology is the study of Microorganisms and their role in living world. Help to know the history, groups of microbes and basic core techniques of microbiology
MB202307	Microbial Physiology & Biochemistry	National/Global	Gives thorough knowledge on biomolecules with basics of Enzymology and nutrition and metabolism in microbes
MB203307	Molecular Biology and Microbial Genetics	National/Global	Develop knowledge on microbial genetics and molecular biology and instrumentation. Concepts of genetics helpful in understanding the hereditary disease diagnosis which in turn helps in prevention of such disorders.
MB204313	Immunology And Medical Microbiology	National/Global	Immunology helps us understand how and why people get sicknesses. Understand the concept of immune mechanism and develop knowledge on disease transmission, control and collection and handling of laboratory specimens
MB204314	Microbial Ecology & Industrial Microbiology	National/Global	Microbial ecology explores the diversity, distribution, and abundance of microorganisms, their specific interactions, and the effect that they have on ecosystems
MB5313	Environmental and Agricultural Microbiology	National/Global	Impart knowledge on soil microorganisms and role in nutrient cycles and inculcate knowledge on plant diseases and their control.
MB5314	Food and Industrial Microbiology	National/Global	Helps to gain knowledge on microorganisms involved in food spoilage and their sources and also isolation and screening of

			industrially important microorganisms.
MB6307	Microbial Biotechnology (Elective)	National/Global	Helps to know about biotechnological applications of Microbes in plants, Animal tissue culture, Animal products and their production and also understand concepts of IPR
MBCE20319	Microbial Diagnosis in Health Clinics	National/Global	This course explains the bacterial and immunological diseases of humans that play an important role in understanding medicine and healthcare. Gives thorough skill in disease diagnosis & public health sector can be improved. Disease outbreaks can be more precisely handled with knowledge of serology, clinical laboratory techniques, diagnostic microbiology and Medical microbiology techniques.
MBCE20320	Microbial Quality Control in Food & Pharma Industries	National/Global	Gives knowledge on Quality control in an industry and allows microbiologists to monitor and protect against microbial contamination in biomanufacturing production systems. Imparts skill in protocols that must be adhered to control the environmental factors in production and maintain a sterile environment
MBCE20321	Bio-fertilizers & Bio-pesticides	National/Global	Helps to understand Microbes are the pivotal for of all life on this planet. As microbes are the basis of the biosphere, application of them in different fields of Agriculture can be understood



Signature of HOD


PRINCIPAL
A.S.D.GOV.T.DEGREE COLLEGE (W)
AUTONOMOUS
KAKINADA



**ASD GOVERNMENT DEGREE COLLEGE FORWOMEN
(AUTONOMOUS):
KAKINADA**

Curriculum and its Relevance to Local/Regional/ National/ Global Needs

Name of the Department - Horticulture

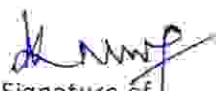

No of Programmes offered by the Dept: 01

Total No. of courses across all programs offered by the Department: 05

BSC (Horticulture)

COURSE CODE	COURSE TITLE	Local /Regional / National /Global	Relevance of the Course
HT21309	Fundamentals of Horticulture & Soil Sciences	Global	This course helps the students to understand about Importance of Horticulture Vegetable crop Gardens Students would be able to study about Orchards Training and pruning methods Soil Profile soil Organic matter useful for the growth of the plant It enhances the ability of the students to grow produce, marketing utilizing high value of intensely grown food and ornamental plants in a sustainable manner The study of soil sciences enables the students to learn about physical chemical and biological properties of the soil and soil properties in relation to the management for crop production. Students will procure knowledge of watershed management
HT202309	Plant propagation and Nursery management	National	Plant propagation is the process of increasing the number of plants of a particular species or cultivar This course helps the students to understand about different kinds of propagation methods to be followed while propagating different kinds of plants Students will gain knowledge about various propagation techniques ,different containers useful in propagation of plants and nursery management This course enables the students to gain knowledge about how to grow plants in an open

			environment maintain a good quality of plants and protect the plants from pests and diseases
HT203309	Basics of Vegetable science (Olericulture)	National	This course enables the students to learn about the production storage processing and marketing of vegetables It encompasses the crop establishment including cultivar selection seed bed preparation and establishment of of vegetable crops by seed and transplants Students will learn the importance of cultivation of various Vegetable plants like Brinjal Tomato capsicum spinach Coriander and Mentha Students will gain knowledge about the cultivation of Tuber crops like cultivation of Carrot Beetroot Colocasia Cole crops cabbage and cauliflower cultivation practices Cultivation practices of Leguminous Vegetables Cluster bean cow pea etc
HT203317	Basics of Fruit Science (Pomology)	National	This course enables the students to gain knowledge on fruit tree improvement to increase production yield and quality Importance of fruits growing in India and Andhrapradesh Export and Import Production value of fruits Tropical fruit crops Mango Guava and Papaya Subtropical and temperate fruit crops Grapes Pomegranate citrus and Apple Production of Arid fruit crops like Amla Dates wood Apple and mangement practices of different fruit crops and students would be able to gain knowledge how to get maximum quality production per unit area with low cost
HT203318	Pests & Diseases of Horticulture plants and their management	Global	This course enables the students to learn about pest management which is an important component of crop production and prevent crop loss. Pests can have detrimental effect on Horticultural operations by effecting the quantity quality and ultimately the marketability of the crops grown Students will be able to study about the Symptoms and Plant diseases caused by Viruses Fungi and Bacteria Students will procure knowledge in disease

			management practices in various vegetable crops like Bhendi Cucurbits Potato sweet Potato and various diseases effecting these crops It enables the students to learn about the importance of Integrated pest Management which is a coordinated system of of controlling pests in the field of Horticulture
	 Signature of HOD Lecturer Department of Botany Incharge in Botany A.D. Govt. Degree College for Women KAKINADA		 Signature of Principal PRINCIPAL A.S.D. GOVT. DEGREE COLLEGE (W) AUTONOMOUS KAKINADA

**A.S.D. Govt. Degree College for Women (AUTONOMOUS):
KAKINADA**

Curriculum and its Relevance to Local/Regional/ National/ Global Needs

Name of the Department: **Home Science**

No of Programmes offered by the Dept: 01(Single Major) BSC (Home Science)

COURSE CODE	COURSE TITLE	Local /Regional / National /Global	Relevance of the Course
HSC 101	Basic Nutrition (FN-1)	Global	Basic Nutrition course helps students to create concepts of food and nutrition its relation to health. Further, it also enriches knowledge about macro and micro nutrients and their functions, sources and deficiencies. Students can able to Planning recipes by selecting appropriate foods based on the macro and micro nutrient composition which is very much essential in menu planning. This has global relevance where students can seek their career in the area of health care sector, Nutritionist, instructors etc.
HSC 102	General Psychology	Global	This course enables the students study the personality of people and also develops the skill of administration of psychological testing scales which forms the basis for pursuing the careers in human development and Guidance and counselling which are very much relevant globally
HSC 103	Fundamentals of Textiles (TEX-1)	Global	The course creates an understanding about the yarns, fibres and fabric and the total process of production to the

			finishing stage of textiles which is useful in textile industry
HSC 201	Introduction to Food Science (FN-2)	Local	This course impart knowledge on plant and animal foods, their selection, nutritive values, composition, storage and processing. Students can learn about various food groups which enhances their creativity to make product development. This also helps students to upgrade knowledge on preparation of balanced diet without losing nutrients.
HSC 202	Housing for Better Living (HM-1)	Local	This courses educates the students about selection of building materials, principles of housing and selection of household equipment which helps the students in enhancing the quality of living conditions of their homes as well as the others in the community
HSC 203	Fundamentals of Home Science Extension (EXT-1)		This course helps in bulding the skills of a student in extending the skills and knowledge that they have learnt to the community to enhance their living conditions
HSC 301	Family& Community Nutrition(FN-3)	Regional	Community nutrition is the science related to practical application of the nutritional knowledge in the field to identify and solve nutritional problems of population groups in the community. Further, students can

			<p>apply Nutritional assessment techniques in different regions to understand the specific nutritional problems. Apart from this, students able to understand Planning of nutritious diets according to RDA for different age groups i.e Infancy to old age and physiological conditions - Pregnancy and lactation. This course enhances students' Knowledge, employability and entrepreneurial skills.</p>
HSC 302	Principles of Garment construction (TEX-2)	Local	<p>It is a skill based course which enables the students to acquire skills in operation of a sewing machine and principles of garment construction</p>
HSC 303	Child Development (HD-1)	Global	<p>Child development course enables the students understand the developmental patterns of the humans in various stages of life span and also imparts knowledge on identification of developmental delays and various developmental disorders. This has global relevance where the students can pursue their careers in the area of special education , human development and Guidance and counselling</p>
HSC 401	Therapeutic Nutrition (FN-4)	Global	<p>This course is very much essential to the students for self-awareness as well as to become dietician in the hospital at local, national and global level.</p>

			Students can understand about modification of normal diets to therapeutic diets for different diseases like Obesity, Cardiovascular, Renal, Diabetes mellitus etc. They also acquire knowledge on Calculation of Nutrient Requirements for complications in different disease conditions. After completing this course, students can get employment in hospitals, health care centres, Diet counselling centres, slimming centres etc.
HSC 402	Fabric Construction & Apparel Care (TEX-3)	Regional	This is a skill based course where the students learn about the various finishes and care of fabrics
HSC 403	Human Development and Family Dynamics(HD-2)	National	This course enables the students understand the development patterns during adolescence and also the dynamics of marriage and family. This has local relevance as the student can extend the knowledge and coping strategies to the community through counselling for strengthening the families and thus the society
HSC 404	Nutritional Bio-Chemistry (FN-5)	Local	Nutritional Biochemistry is an advanced nutrition course emphasizing the metabolism and biochemistry of the energy-

			<p>containing macronutrients: carbohydrates, lipids, proteins and other related compounds. Their chemical structures, digestion, absorption, distribution, and cellular metabolism are covered. Central themes will include the utilization of macronutrients in energy metabolism and the integration and regulation of metabolic pathways. The overall focus is on the application of biochemistry to nutrition to provide an appreciation for the chemical basis of applied nutrition science.</p>
HSC 405	Resource Management and Family Economics	Local	<p>This course capacitates the students in effective management of the family resources and especially the management of family income. It has local relevance as this knowledge enhances the effective functioning of the families</p>
HSC 406	Home Science Extension And Community Development (EXT-2)	Regional	<p>Enables the students to learn about the community and their needs and the ways of extending their knowledge for the betterment of the community</p>
HSC 16c	Food Quality Control and Assurance	National	<p>This course covers the basic concepts of Food quality control and assurance with respect to its importance as well as the related</p>

			<p>terms and definitions. The course also discusses food quality control development, food quality parameters and how they are evaluated. The course also deals with the structure, management and functions of quality control systems on industrial and regulatory scales. After successful completion of this course the student should be able to:</p> <ol style="list-style-type: none"> 1. Understand the principles of management systems directed towards the control of food quality. 2. Recognize food laws and regulations governing the quality of foods. 3. Develop procedures and approaches to identify food safety hazards in food processing. 4. Identify the wide variety of parameters affecting food quality. 5. Develop quality control strategies.
HSC 17c	Food Safety, Sanitation and Hygiene	Global	Enables the student to learn about the sanitation and hygiene while handling different foods from production to consumption stage
HSC 18c	Guidance and Counselling	Global	Provides the students with knowledge on various guidance and counselling techniques which are helpful in personal and professional level
HSC 19c	Education and Counselling for Parents and Community	Regional	Students learns the skill of educating the parents and also surrounding community of the student population about the

			knowledge and skills acquired as a part of their formal education
HSC 20a	Interior Design and Decoration	Global	Students gain knowledge and understanding about the art and design and how to incorporate in their interiors which is required as a part of any profession art and design