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



# **PROGRAMME SPECIFIC**

# **OUTCOMES**

# 2023-24

# A.S.D.GOVERNMENT DEGREE COLLEGE FOR WOMEN (A), KAKINADA. PROGRAMME SPECIFIC OUTCOMES 2023-24

#### PROGRAMME SPECIFIC OUTCOMES (PSO'S) OF CBZ/ ZOOLOGY MAJOR

## (2023-2024)

The students who pursue B.Sc- CBZ (Chemistry, Botany, Zoology)/ Zoology Major after completing their programme will be able to:

PSO1.Understand the basic concepts of Botany, Zoology and Chemistry which include Morphology, Physiology, Genetics, Evolution, Taxonomy, Cell Biology, Embryology, Economic Zoology, Economic Botany, Biochemistry, Biotechnology, Immunology, Horticulture, Microbiology, Organic Chemistry, Inorganic Chemistry, Physical Chemistry, Environmental Chemistry etc.

**PSO 2.** Apply skills developed in both theory and practical in Botany, Zoology and Chemistry in daily life.

**PSO 3.** Understand the significance of biodiversity in maintaining sustainable Ecosystems.

**PSO 4.** Develop responsible behaviour towards nature by understanding the concepts of Environmental Education.

**PSO 5.** Acquire knowledge and understanding in various instrumentation techniques such as Chromatography, PCR, HPLC, Spectroscopy, Centrifugation etc., which are applicable to all subject disciplines.

**PSO 6.** Pursue higher studies in interdisciplinary areas such as Biochemistry, Microbiology, Bioinorganic Chemistry, Bioinformatics etc.,

**PSO 7.** Apply the practical knowledge in securing employment in Biological Laboratories / Chemical/ Pharmaceutical industries.

**PSO 8.** Develop in to Entrepreneurs and create employment.

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Vint-Q Principal

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

## **PSO's of CZAqT**

- 1. To develop theoretical and practical skills in Zoology, Chemistry and Aquaculture.
- 2. To understand the interdisciplinary areas in Chemistry and Zoology.
- 3. To provide opportunity in pursuing higher studies in all disciplines of life sciences and Chemistry.
- 4. To create Entrepreneurship / Self-employment opportunities in Aquaculture areas.
- 5. To apply various laboratory techniques learnt in Chemistry in Aquaculture laboratories in areas such as Quality assurance, Quality Control, and diagnostics.

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Vint-Q Principal PRINCIPAL A.S.D.GOVT.DEGREE COLLEGE (W) KAKINADA

# **Programme Specific Outcomes of CBZ – 2023-2024**

- 1. To develop skills in both theory and practical in Botany, Zoology and Chemistry.
- 2. To appreciate interdisciplinary aspects in Botany, Zoology and Chemistry
- 3. To facilitate the students to pursue higher studies in interdisciplinary areas such asBiochemistry, Bioinorganic Chemistry, Bioinformatics etc..,
- 4. To facilitate employment as lab analyst in Biological Laboratories.
- 5. To acquire knowledge and understanding in various instrumentation techniques such as Chromatography, PCR, HPLC which are applicable to all subject disciplines

V.nl-Q Principal

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# Programme Specific Outcomes of CBHt – 2023-2024 <u>PSO's of CBHt</u>

- 1. To learn the chemical composition of Organic and Inorganic manures and pesticides and their application to crops.
- 2. To promote Organic Farming to reduce environmental pollution and to sustain the quality of environment
- 3. To motivate the students towards entrepreneurship and self-employment in Land scaping, Nurseries, Green House Management, Grafting Techniques etc.,
- 4. To pursue higher education in Horticulture, Chemistry, Botany and other inter disciplinary areas.

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## PROGRAM SPECIFIC OUTCOMES OF CBMB

Microbiology students who graduate with a Bachelor of Science with Microbiology will

- 1. To acquire knowledge in chemistry, Botany and Microbiology and their interrelationships
- 2. To understand concepts of microbial diseases in plants & animals, their treatment in order to enhance the crop yield and quality of life and sustainable world.
- 3. To apply the knowledge and understanding of the three subject disciplines in getting employment opportunities such as Quality control Analyst, Quality assurance chemist in microbiological Laboratories.
- Be proficient on cloning vectors and rDNA technology and make use of the skills in the production of new drugs, food products, Vaccines, Genetically engineered products and Beverages etc...,
- 5. To pursue higher education and research in multidisciplinary areas like Food, Microbiology, Food Technology etc..,
- 6. Develop ideas on entrepreneurship in the areas of applied Microbiology like Agriculture & Environmental microbiology, Food & Industrial microbiology sector.



PROGRAMME	Program Specific Outcomes
Mathematics Major	PSO1:Understanding of the fundamental axioms in mathematics and
	Capability of developing ideas based on them.
	PSO 2: Provide knowledge of a wide range of mathematical
	techniques and application of mathematical methods/tools in other
	Scientific and engineering domains.
	PSO3:Provide advanced knowledge on topics in pure mathematics,
	Empowering the students to pursue higher degrees at reputed
	academic institutions.
	PSO4:Prepare and motivate students for research studies in
	Mathematics and related fields.
	PSO4:Nurture problem solving skills, thinking, creativity through
	Assignments , project work .



#### PSO's of PHYSICS - Major-AY 2023-2024

A student completing this program will be able to:

**PSO1**: Graduates will acquire a comprehensive knowledge and sound understanding of fundamentals of Physics.

**PSO2**: Graduates will develop practical, analytical and mathematical skills in Physics. Which enabling them to take measurements in a physics laboratory and analyze the measurements to draw valid conclusions.

**PSO3** Illustrate the principles of mechanics and properties of matter, electricity, magnetism, thermodynamics, optics, spectroscopy, and can Design, construct and analyze basic electronic and digital circuits. be able to apply this knowledge to analyze a variety of physical phenomena.

**PSO4** Through experimental skills and independent work culture through a series of experiments that compliment theories and projects, they develop the capability of oral and written scientific communication and will prove that they can think critically..

**PSO5**: Graduates will acquire necessary skills to enable them to crack competitive examination for career progression or seeking employment. will be capable of oral and written scientific communication and will prove that they can think critically and work independently.

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# PROGRAMME SPECIFIC OUTCOMES OF COMPUTER SCIENCE STREAM:

**PSO1:** To understand the principles and working of computer systems and be able to apply computational knowledge and project development skills to provide innovative solutions.

**PSO2:** To design and develop computer programs and understand the structure and development methodologies of software systems.

**PSO3:** To apply their skills in the field of algorithms, web design, and data analytics.

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V.NOO PRINCIPAL A.S.D.GOVT.DEGREE COLLEGE KAKINADA

# **Program Specific Outcomes (PSOs) of Home Science:**

- 1. Demonstrate a comprehensive understanding of the principles, theories, and concepts related to Home Science and its various disciplines
- 2. Acquire and apply practical skills in areas such as food and nutrition garment construction, interior design, child development, and family resource management to enhance the quality of life for individuals and families.
- 3. Conduct research, consolidate and analyze information using appropriate methods and tools to address relevant issues and contribute to the advancement of knowledge.
- 4. Apply critical thinking skills to evaluate complex problems and make informed decisions related to food and nutrition, textiles, child development, and resource management.
- 5. Effectively communicate ideas, information, and research findings to diverse audiences using appropriate written, oral, and visual formats within the context of Home Science.
- 6. Demonstrate ethical behavior and professional conduct in all aspects of Home Science practice, including maintaining confidentiality, respecting cultural diversity, and adhering to ethical guidelines in research and professional interactions.
- 7. Exhibit leadership skills and work effectively as part of a team in various settings, collaborating with professionals and community members to achieve common goals and address challenges.
- 8. Adapt to changing trends and advances in Home Science by engaging in lifelong learning, continuously updating knowledge and skills to stay current in the field and promote personal and professional growth.
- 9. Contribute to the development and well-being of communities by applying knowledge and skills to address local needs, promote health and nutrition, enhance family dynamics, and support sustainable practices.
- Demonstrate entrepreneurial skills and innovative thinking by identifying opportunities, creating and implementing new ideas, and applying Home Science principles to develop and manage projects, start-ups, initiatives thatbenefit individuals, families, and communities.



# **Programme Specific Outcomes of Mathematics Stream**

# Course

PROGRAMME	Program Specific Outcomes
	PSO 1: To understand nature, scope, basic concepts and terminology
	of Mathematics, Statistics and Computer Science.
	PSO 2: To identify and analyse the concepts of mathematics,
	statistics and computers science and then to find their applications in
	different areas like physical sciences, life sciences, various industries,
MSCs	etc.
	PSO 3: To solve various real life problems by developing
	mathematical model and applying various statistical tools with the
	help of computer programming knowledge.
	PSO 4: To develop thinking about research to solve critical problems.
	PSO 4: To get the employability skills especially chemical industries.



#### PROGRAM SPECIFIC OBJECTIVES (B.Com General & Vocational)

- Students of this program will, in the fifth and sixth semesters, given a choice of over 10 electives including subjects like Marketing, Banking, Retailing etc., each of which will have skill based integration into the theoretical content that is offered.
- Student seminars, workshops and guest lectures are organized throughout semester, with guest speakers who have experience in the contemporary business.
- Bridge course in Accounting are conducted to enable students from other disciplines to integrate into the framework.
- Students are training in Tally to be on par with industry standards locally and in the global arena.
- Students connect meaningfully with the working world through regular field trips. These visits provide students a thorough understanding of business skills and cultural education to make a mark in the industry.
- Multiple social activities are conducted over three years to develop sense of community orientation.
- To bring global exposure and subjects like web technology, c-language, Object Oriented Programs, JAVA are introduced in B.Com Computers to challenge the world.



# PROGRAMME SPECIFIC OUTCOMES OF COMPUTER APPLICATIONS

**PSO1:** Gain foundation and incremental knowledge in different areas of Commerce.

**PSO2:** Develop basic understanding of conceptual and functional knowledge of software commonly used in academic and professional environments.

**PSO3:** Provide technical support and computing leverages for improved communication in Office and Business management.

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# PROGRAMME SPECIFIC OUTCOMES OF B.A STREAM COURSES

Programme	PROGRAMME SPECIFIC OUTCOMES (HEP)
	PSO 1: To provide Students the knowledge to understand, and
	Analyze various Social issues and to formulate well organized
	discussions and arguments that state assumptions and hypothesis
	supported by evidence.
BA (HEP)	PSO 2: To develop Critical Thinking skills among students so as to
	make them as good social scientists.
	PSO3: To promote values such as sustainable development, Optimum
	utilization of resources, patriotism, respecting the ideals of freedom
	struggle and responsible citizenship, political participation and
	socialization.
	<b>PSO4:</b> To provide life skills required for gainful employment by using
	domain knowledge such as Economic Service, Historians/ History
	writing and bureaucrats at various levels.
	PSO5: Enable students to acquire Skill needed to be dutiful and
	responsible citizen

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	<b>PSO4:</b> To provide life skills required for gainful employment by using domain knowledge such as Economic Service, Historians/ History writing and bureaucrats at various levels.
	<b>PSO5:</b> Enable students to acquire Skill needed to be dutiful and responsible citizen

# Chemistry <u>PSO's of MPC:</u>

1.Enable to acquire strong foundation in Algebra, Real Analysis, Calculas and LinearAlgebra.

2.Develop logical, analytical, critical thinking skills by solving maths problems which assists to solve real life problems in related areas.

3.Develop the knowledge and skills in the areas of Mechanics, Thermal Physics, Optics, Electromagnetism, Quantum Physics, Solid state Physics for pursuing higher education and research.

4. Knowledge in energy and matter enables fabrication of new devices.

5.Attain sound knowledge and skill in Inorganic chemistry, Physical Chemistry, which leading to develop new technologies including catalysis, new advanced materials and energy storage devices like lithium batteries etc.It leads better quality of life and sustainable world.

6.Develop knowledge on organic reactions and their mechanisms which in turn playsmajor role in the synthesis and development of new Chiral drugs/drugs which impact our quality of lives by addressing global society issue health.

7. Achieve the ability to analyse qualitatively, to estimate quantitatively, to synthesize, separate, and characterize compounds using experimental and instrumentation techniques.

8. Pursue higher studies and research in interdisciplinary areas.

# PSO's of CBZ

**1.**To develop skills in both theory and practical in Botany, Zoology and Chemistry.

2. To appreciate interdisciplinary aspects in Botany, Zoology and Chemistry.

3.To facilitate the students to pursue higher studies in interdisciplinary areas such asBiochemistry, Bioinorganic Chemistry, Bioinformatics etc..,

4. To facilitate employment as lab analyst in Biological Laboratories.

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2. To understand the interdisciplinary areas in Chemistry, Zoology and Chemistry.

3.To provide opportunity in pursuing higher studies in all disciplines of life sciences

andChemistry.

4. To create Entrepreneurship / Self-employment opportunities in Aqua culture areas.

5.To apply various laboratory techniques learnt in Chemistry in Aqua culture laboratories in areas such as Quality assurance, Quality Control and diagnostics.6.Attain sound knowledge and skill in Inorganic chemistry, Physical Chemistry,

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## **PSO's of CBMB**

1.To acquire knowledge in chemistry, Botany and Microbiology and the irinter relationships.

2.To understand various microbial diseases of plants and their treatment in order toenhance the crop yield.

3.To apply the knowledge and understanding of the three subject disciplines in getting employment opportunities such as Quality control Analyst, Quality assurance chemist in microbiological Laboratories.

4.To make use of the skills in the production of food products, Vaccines and Beverages etc..,

5.To pursue higher education in multidisciplinary areas like Food, Microbiology, Food Technology etc..,

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2.To promote Organic Farming to reduce environmental pollution and to sustain the quality of environment.

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4.To pursue higher education in Horticulture, Chemistry, Botany and other interdisciplinary areas.

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