PROGRAM STRUCTURE & CURRICULUM

Curriculum Structure:

❖ **PHD101: RESEARCH METHODOLOGY**

COURSE OUTCOMES
After the course, the research scholar will be able to: a. Understand research terminology b. Describe quantitative, qualitative, and mixed methods of approach to research c. Identify the components of the research process from the literature review for the submission of the research report. d. Critically analyze the published research. e. Develop awareness of the ethical principles, and challenges involved in research processes.

❖ **PHD201: RESEARCH AND PUBLICATION ETHICS**

COURSE OUTCOMES
After the course, the research scholar will be able to: a. Carry out research ethically and publish papers without compromising on quality. b. Identify predatory journals and avoid publishing in the same. c. Learn the importance of open access publications and advantage of publishing in d. these platforms. e. Equip themselves with knowledge on how to use software tools for checking plagiarism. f. Explore databases, appraise authors via citation and produce quality research work ethically.

❖ **PHD210BM - CONTEMPORARY ASPECTS OF COMMERCE**

COURSE OUTCOMES
After the course, the research scholar will be able to: a. Understand the policy reforms and regulations. b. Analyze the financial statements and understand the Indian capital market, its operations, instruments, and regulations. c. Understand contemporary e-commerce concepts and terminology, and the processes and management decisions that are involved in launching, operating, and managing business activity on the World Wide Web. d. Understand the recent developments in the banking and insurance sectors. e. Know the application of the latest technology adopted in banking to market thei products/services.

❖ PHD201BE - TRENDS IN INDIAN ECONOMY

COURSE OUTCOMES
After the course, the research scholar will be able to: a. Understand various issues like growth of national income, population, poverty, human resources and economic stability in the Indian economy.   b. Understand the contribution of agriculture, industry and service sector to the overall development of the Indian economy.   c. Understand the budgetary exercises in bringing fiscal discipline in the Indian economy.   d. Understand the overall growth of foreign trade and its contribution to the Indian economy in the changing international order.

❖ PHD204BT - DATA SCIENCE AND BIG DATA ANALYTICS

COURSE OUTCOMES
After the course, the research scholar will be able to: a. Explain basic concepts in data science and Big Data analytics.   b. Apply principles of Data Science to the analysis of business problems.   c. Solve analytics problems using appropriate technologies and tools.   d. Explain various applications across multiple domains.   e. Identify gaps and issues with current approaches which will enable identification of potential research areas.

❖ PHD205BT – WIRELESS SENSOR NETWORKS

COURSE OUTCOMES
After the course, the research scholar will be able to: a. Get an overview of the various network level protocols.   b. Understand what research problems sensor networks pose in disciplines such as signal processing, wireless communications and even control systems.   c. To get a broad understanding of the technologies and applications for the emerging and the exciting domain of wireless sensor networks.

❖ PHD206BT – DIGITAL SIGNAL PROCESSING

COURSE OUTCOMES
After the course, the research scholar will be able to: a. Understand the mathematical concepts of signal representation and transformations with their analysis.   b. Develop the ability to generate proper solutions to signal processing problems.   c. Understand Digital Signal Processing applications and implementation of signal processing to various applications.   d. Understand the mathematical concepts of signal representation and transformations with their analysis.   e. Develop the ability to generate proper solutions to signal processing problems.

❖ **PHD207BT - COMPUTER SCIENCE RESEARCH FUNDAMENTALS**

COURSE OUTCOMES
After this course, the student will be able to: a. Formulate solutions to computing problems b. Work effectively in teams to design and implement solutions to computational problems c. Apply sound principles to the synthesis and analysis of computer systems d. Design and implement effective solutions to computing problems e. Design and implement software systems that meet specified design and performance requirements

❖ **PHD208BT - ENCRYPTION ALGORITHMS**

COURSE OUTCOMES
After the course, the research scholar will be able to: a. Implement basic security algorithms required by any computing system. b. Formulate research problems in the computer security field. c. Evaluate security mechanisms using rigorous approaches, including theoretical derivation, modeling, and simulations. d. Analyze the vulnerabilities in a computing system and design a security solution. e. Analyze the possible security attacks in complex real time systems and their effective countermeasures. f. Identify the security issues in the network and resolve it.

❖ **PHD209BT DIGITAL IMAGE PROCESSING**

COURSE OUTCOMES
After this course, the student will be able to: a. **Discuss digital image fundamentals.** b. **Apply image enhancement and restoration techniques.** c. **Use image compression and segmentation Techniques.** d. **Represent features of images.**

❖ **PHD202BL – APPROACHES IN LEGAL RESEARCH**

COURSE OUTCOMES
After the course, the research scholar will be able to: a. Be conversant with basic principles of law. b. Effectively reason and present critical analysis on current legal issues. c. Better comprehend the inherent interdisciplinary character of law.

❖ **PHD204BH - CONTEMPORARY ENGLISH LITERATURE**

COURSE OUTCOMES
After the course, the research scholar will be able to: a. Be acquainted with major trends and writers in English literature through detailed study of specific literary works. b. Critically analyze and evaluate literary works in the context of their intellectual, cultural, socio-political and literary background. c. Be acquainted with major genres in British, American and Indian literature. d. Write researched, well-developed papers concerning works of literature using various critical approaches.

❖ **PHD201BD - TRENDS AND CONTEMPORARY ISSUES IN EDUCATION**

COURSE OUTCOMES
After the course, the research scholar will be able to: a. Examine the social implications of the recent trends in Education b. Identify different issues pertaining to diversity as well as their impact on student learning c. State the nature and scope of the factors affecting the quality of schooling d. Explain how different kinds of schooling affect the quality of schooling **e)** Analyze the changing role of the teacher in contemporary society

❖ **PHD201BI - RECENT DEVELOPMENTS IN LIBRARY AND INFORMATION SCIENCE**

COURSE OUTCOMES
After the course, the research scholar will be able to: a. Develop leadership and managerial skills to handle libraries more effectively. b. Develop skills to perform library operations and to evaluate library and information center's performance. c. Use modern library management techniques to achieve the organizational effectiveness and efficiency