



**TELANGANA SOCIAL WELFARE RESIDENTIAL DEGREE COLLEGE
FOR WOMEN , WANAPARTHY
Wanaparthi - 509103
Affiliated to Palamuru University , MBNR**



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DEPARTMENT OF COMPUTERS

B.COM (Computer Applications)

CBCS COURSE STRUCTURE

PAPER	SEMESTER	COURSE TITLE	HP W	Hours/per week		Max. Marks	Credits
				Theory	Practical		
DSC103	I	Fundamentals of Information Technology	7	3	4	50T+35P + 15I	5
DSC203	II	Programming with C & C++	7	3	4	50T+35P + 15I	5
DSC303	III	Relational Database Management System	7	3	4	50T+35P + 15I	5
DSC403	IV	Web Technologies	7	3	4	50T+35P + 15I	5
DSE503	V	a) Management Information Systems/ b) Ecommerce/ c) Mobile Applications	7	3	4	50T+35P + 15I	5
DSE603	VI	a) Multimedia Systems/ b) Cyber Security/ c) Data Analytics	7	3	4	50T+35P + 15I	5
AECC1	I	Basic Computer Skills	2	-	-	40U+10I	2
AECC2	II	Basic Computer Skills	2	-	-	40U+10I	2
SEC1	III	Foundation of Digital Marketing	2	-	-	40U+10I	2
SEC2	III	Web Design & Analytics	2	-	-	40U+10I	2
SEC3	IV	Social Media Marketing	2	-	-	40U+10I	2
SEC4	IV	Search Engine Optimization & Online Advertising	2	-	-	40U+10I	2



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COURSE OBJECTIVES

I Year Semester I	Subject: Fundamentals of Information Technology	Code: DSC103
<p>COB1: Understand the meaning and basic components of a computer system. COB2: To learn generation, classification and application of computers. COB3: Knowledge of computer equipment, including both hardware and software. COB4: To learn input devices and output devices in detail. COB5: To learn memory and its types in detail. COB6: Knowledge of number system, number arithmetic, ASCII & EBCDEC character set COB7: Knowledge of Software, its types and application package. COB8: Use word-processing software (MS-Word), spreadsheet software (MS-Excel) and presentation software (MS-PowerPoint) to solve basic information systems problems.</p>		

I Year Semester II	Subject: Programming with C & C++	Code: DSC203
<p>COB1: To develop programming skills using the fundamentals and basics of C language. COB2: To learn problem solving techniques. COB3: To study the advantages of user defined data type which provides flexibility for application development COB4: To study the basics of pre-processors available with C compiler. COB5: To enable effective usage of arrays, structures, functions and pointers. COB6: To understand how C++ improves C with object-oriented features. COB7: To learn how to write inline functions for efficiency and performance. COB8: To learn the syntax and semantics of the C++ programming language. COB9: To learn how to design C++ classes for code reuse</p>		



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II Year Semester III	Subject:Relational Database Management System	Code: DSC303
<p>COB1: Learn and practice data modelling using the entity-relationship and developing database designs.</p> <p>COB2: Understand the use of Structured Query Language (SQL) and learn SQL syntax.</p> <p>COB3: Apply normalization techniques to normalize the database</p> <p>COB4: Understand the needs of database processing and learn techniques for controlling the consequences of concurrent data access.</p> <p>COB5: Understand the needs of Database Design</p>		

II Year Semester IV	Subject: Web Technologies	Code: DSC403
<p>COB1: Navigate information on the Internet and search for, identify, download, decompress and view useful information using web browsers, search engines, FTP, gopher, telnet and other software.</p> <p>COB2: Communicate with others asynchronously using electronic mail, attachments, newsgroups and list servers, and in real time using chat, talk, video conferencing and other software.</p> <p>COB3: Insert a graphic within a web page.</p> <p>COB4: Create a table, link within a web page.</p> <p>COB5: Insert heading levels within a web page.</p> <p>COB6: Insert ordered and unordered lists within a web page.</p> <p>COB7: Use cascading style sheets. 8. Create a web page.</p>		



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III Year Semester V	a) Management Information Systems/ b) Ecommerce/ c) Mobile Applications	Code: DSC503
<p>a) Management Information Systems COB1: Provide information to support management decision making COB2: Provide pre-specified and preplanner reporting to managers COB3: Provide interactive and ad-hoc support for decision making COB4: Provide critical information for top management COB5: Gather and store data from different departments</p> <p>b) Ecommerce COB1: This course introduces information systems for business and management. COB2: It is designed to familiarize students with organizational and managerial foundations of systems, the technical foundation for understanding information systems</p> <p>c) Mobile Applications COB1. Create android project from XML Layout. COB2. Debug android apps and create UI fragments COB3. Pass data between fragments COB4. Design apps with audio play back. COB5. Create database and communicate with mobile apps</p>		

I Year Semester I	Subject: Search Engine Optimization & Online Advertising	Code: SEC4
<p>COB1: More visibility in the SERPs COB2: More traffic to your website and other assets. COB3: Better quality traffic to your website and other assets ... COB4: Greater intelligibility to the public. COB5: Greater intelligibility to search engines ...</p>		



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III Year Semester VI	a) Multimedia Systems/ b) Cyber Security/ c) Data Analytics	Code: DSC603
<p style="text-align: center;">a) Multimedia Systems</p> <p>COB1. Create a simple animation and interaction for multimedia presentation COB2. Understand image types and color models COB3. Describe the concepts regarding the digitization of audio signals COB4. Compress images, videos and audios using data compression methods COB5. Encode videos and audios using MPEG</p> <p style="text-align: center;">b) Cyber Security</p> <p>COB1: Exhibit knowledge to secure corrupted systems, protect personal data, and secure computer networks in an Organization. COB2: Practice with an expertise in academics to design and implement security solutions. COB3: Understand key terms and concepts in Cryptography, Governance and Compliance. COB4: Develop cyber security strategies and policies COB5: Understand principles of web security and to guarantee a secure network by monitoring and analysing the nature of attacks through cyber/computer forensics software/tools.</p> <p style="text-align: center;">C) Data Analytics</p> <p>CO1: Explain data science and its applications. CO2: Understand the strategies of data collection and pre-processing. CO3: Describe EDA. CO4: Apply statistics methods to develop models. CO5: Learn the evaluation metrics and techniques</p>		



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I Year Semester I	Subject: Basic Computer Skills	Code: AECC1
<p>COB1: Understand the meaning and basic components of a computer system.</p> <p>COB2: To learn generation, classification and application of computers.</p> <p>COB3: Knowledge of computer equipment, including both hardware and software.</p> <p>COB4: To learn input devices and output devices in detail.</p> <p>COB5: To learn memory and its types in detail.</p> <p>COB6: Knowledge of number system, number arithmetic, ASCII & EBCDEC character set</p> <p>COB7: Knowledge of Software, its types and application package.</p> <p>COB8: Use word-processing software (MS-Word), spreadsheet software (MS-Excel) and presentation software (MS-PowerPoint) to solve basic information systems problems.</p>		

I Year Semester II	Subject: Basic Computer Skills	Code: AECC2
<p>COB1: Understand the meaning and basic components of a computer system.</p> <p>COB2: To learn generation, classification and application of computers.</p> <p>COB3: Knowledge of computer equipment, including both hardware and software.</p> <p>COB4: To learn input devices and output devices in detail.</p> <p>COB5: To learn memory and its types in detail.</p> <p>COB6: Knowledge of number system, number arithmetic, ASCII & EBCDEC character set</p> <p>COB7: Knowledge of Software, its types and application package.</p> <p>COB8: Use word-processing software (MS-Word), spreadsheet software (MS-Excel) and presentation software (MS-PowerPoint) to solve basic information systems problems.</p>		



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II Year Semester III	Subject: Foundation of Digital Marketing	Code: SEC1
<p>COB1:Increasing brand awareness: Online marketing helps to create and enhance brand visibility among the target audience.</p> <p>COB2:Driving website traffic: Online marketing aims to attract relevant and quality traffic to a company's website. ...</p> <p>COB3:Generating leads: One of the primary objectives of online marketing is to capture potential customers' contact information and convert them into leads.</p>		

I Year Semester III	Subject: Web Design & Analytics	Code: SEC2
<p>COB1: The information domain is modeled.</p> <p>COB2: Behavior is represented.</p> <p>COB3: Function is described.</p> <p>COB4: Data, functional, and behavioral models are divided to uncover greater detail.</p> <p>COB5: Early models represent the essence of the problem, while later ones provide implementation details.</p>		

Year Semester I	Subject: Social Media Marketing	Code: SEC3
<p>COB1: Create and curate content. To stay afloat as a social media marketer, you need to invest time in content creation and curation. Know your audience well. Be ready to do content marketing day in and day out. ...</p> <p>COB2: Drive traffic.</p> <p>COB3: Encourage lead generation. ...</p> <p>COB4: Increase brand awareness.</p>		



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COURSE OUTCOMES

I Year Semester I	Subject: Fundamentals of Information Technology	Code: DSC103
<p>After the completion of the course, Students will be able to</p> <p>CO1: Understand model, components of computer and how it works. CO2: Understand the concept of input and output devices of Computers in detail. CO3: Understand RAM, ROM and their types in detail. CO4: Understand the concepts, structure, types and design of operating Systems. CO5: Recognize when to use each of the Microsoft Office programs to create professional and academic documents. CO6: Students will have a working knowledge of paragraph formatting, macro and mail merge in MS-Word. CO7: Students will have a working knowledge of basic functions and formulas in MS Excel. CO8: Create presentation by adding slides, applying animations, set times to slides, linking to other file.</p>		

I Year Semester II	Subject: Programming with C & C++	Code: DSC203
<p>After the completion of the course, Students will be able to</p> <p>CO1: Read, understand and trace the execution of programs written in C language. CO2: Write the C code for a given algorithm. CO3: Write programs that perform operations using derived data types. CO4: Implement Programs with pointers and arrays, perform pointer arithmetic, and use the pre-processor CO5: Understand Opening/Closing a file, reading from and writing to a file. CO6: Understand the features of C++ supporting object-oriented programming CO7: Understand the relative merits of C++ as an object-oriented programming language CO8: Understand how to produce object-oriented software using C++ CO9: Understand how to apply the major object-oriented concepts to implement object-oriented programs in C++, encapsulation, inheritance and polymorphism</p>		



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II Year Semester III	Subject:Relational Database Management System	Code: DSC303
After the completion of the course, Students will be able to		
CO1: To describe data models and schemas in DBMS		
CO2: To understand the features of database management systems and Relational database.		
CO3: To use SQL- the standard language of relational databases.		
CO4: To understand the functional dependencies and design of the database.		
CO5: To understand the concept of Transaction and Query processing.		

II Year Semester IV	Subject: Web Technologies	Code: DSC403
After the completion of the course, Students will be able to		
CO1: Describe the basic concepts for network implementation		
CO2: Learn the basic working scheme of the Internet and World Wide Web		
CO3: Understand fundamental tools and technologies for web design.		
CO4: Specify design rules in constructing web pages and sites.		
CO5: Create a table, link, list (ordered and unordered), CSS within a web page.		
CO6: Create a web page having form tools.		



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III Year Semester V	a)Management Information Systems/ b)Ecommerce/ ,c)Mobile Applications	Code: DSC503
<p>After Completion of the subject student should able to</p> <p><u>a)Management Information Systems</u> CO1: Describe the role of information technology and information systems in business CO2: Record the current issues of information technology and relate those issues to the firm CO3: Reproduce a working knowledge of concepts and terminology related to information technology CO4: Appraise the knowledge previously acquired of Microsoft Office CO5: Analyze how information technology impacts a firm CO6: Interpret how to use information technology to solve business problems CO7: Illustrate the impact of information systems in society</p> <p><u>b)Ecommerce</u> CO1: Understand the basic concepts and technologies used in the field of management information systems; CO2: Have the knowledge of the different types of management information systems; CO3: Understand the processes of developing and implementing information systems; CO4: Be aware of the ethical, social, and security issues of information systems;</p> <p><u>c)Mobile Applications</u> CO1: Master practical tools, methods and techniques for the design, - implementation, and pilot testing of mobile phone software applications. CO2: Understand advanced aspects of mobile application development such as memory and process management, user interface design, data handling, network techniques and use of mobile sensing. CO3: Evaluate the technical, social, and business dimensions of mobile applications using industrial standards.</p>		



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III Year Semester VI	a)Multimedia Systems/ b)Cyber Security/ c) Data Analytics	Code: DSC603
<p>After Completion of the subject student should able to</p> <p>a) CO1: Communicate clearly and concisely, visually, verbally and in writing, using techniques appropriate for the intended audience. CO2: Demonstrate knowledge of discipline-specific skills and vocabulary.</p> <p>b) CO1: Analyse and evaluate the cyber security needs of an organization. CO2: Determine and analyse software vulnerabilities and security solutions to reduce the risk of exploitation. CO3: Measure the performance and troubleshoot cyber security systems. CO4: Implement cyber security solutions and use of cyber security, information assurance, and cyber/computer forensics software/tools. CO5: Comprehend and execute risk management processes, risk treatment methods, and key risk and performance indicators CO6: Design and develop a security architecture for an organization. CO7: Design operational and strategic cyber security strategies and policies.</p> <p>c) CO1:Present an overview data science and applications. CO2: Plan the methods of data collection. CO3: Describe the statistical methods in EDA. CO4: Apply statistical methods to develop and evaluate the models. • Becoming an expert in decision making for complex projects.</p>		



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I Year Semester I	Subject: Basic Computer Skills	Code: AECC1
After Completion of the subject student should able to		
CO 1: Gain a basic understanding of computer hardware and software.		
CO 2: Achieve basic level of competency in programming and logic skills.		
CO 3: Understand the various programming paradigms.		
CO 4: Utilize web technologies.		

I Year Semester II	Subject: Basic Computer Skills	Code: AECC2
After Completion of the subject student should able to		
CO1: Appropriately start up and shut down your computer		
CO2: Navigate the operating system and start applications		
CO3: Perform basic functions of file management		
CO4: Perform basic functions in a word processor and spreadsheet		
CO5: Manage print settings and print documents		

II Year Semester III	Subject: Foundation of Digital Marketing	Code: SEC1
After Completion of the subject student should able to		
CO1: Communication: Communicate clearly and effectively in both written, oral and digital forms to an intended audience using strategies and methods appropriate to college-level expectations.		
CO2: Critical Thinking and Problem Solving:		
CO3: Leadership and Team Collaboration		
CO4: Comprehension and Application of New Media		
CO5: Synthesis and the Foundational Knowledge of Business Disciplines and digital ethics.		



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I Year Semester III	Subject: Web Design & Analytics	Code: SEC2
After Completion of the subject student should able to		
<p>CO:1 Exploring and learning web design , Understanding Conversion rate optimization (CRO)</p> <p>CO2: Understanding target audience – Optimization champion.</p> <p>CO3: Additional interface features Using reports Audience reports , Acquisition reports Social reports Behavior reports Track events Conversion reports</p>		

Year Semester I	Subject: Social Media Marketing	Code: SEC3
After Completion of the subject student should able to		
<p>CO1: Develop social media marketing strategy for achieving organisation goals.</p> <p>CO2: Set up, design and monitor the Facebook Pages and Facebook advertising campaigns.</p> <p>CO3: Create, manage and monitor Twitter marketing campaigns.</p>		

I Year Semester I	Subject: Search Engine Optimization & Online Advertising	Code: SEC4
After Completion of the subject student should able to		
<p>CO1:Learn the concept of SEO,on site and off site SEO,importance,ranking factors and search verticles</p> <p>CO2: Learn how to do keyword research for content strategies.</p> <p>CO3: Optimize website structure and code to improve search engine rankings</p> <p>CO4: Analyse the content to prevent search engine penalties like keyword stuffing ,increase keyword relevancy and page authority.</p>		