



**BINOD BIHARI MAHTO KOYALANCHAL UNIVERSITY,
DHANBAD, JHARKHAND.**

FYUGP Syllabus Skill Enhancement Course (SEC)

Under
(State Universities of Jharkhand Regulation, 2024)

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SEC - 1

Course Credit	No. of Lectures	Examination	Full Marks	Pass Marks
03	45	Semester (Final)	75	30
<p>Instructions: There will be fifty multiple-choice questions covering the entire syllabus. Each question will be of 1.5 marks.</p>				
Year/ Semester	<p>Paper Title: Computer Fundamentals & Computer Proficiency</p>			
<p>Year - I Semester - I (Foundation or Introductory Course)</p>	<p>Unit 1: Computer Fundamentals Introduction and characteristics of Computer, Basic applications of Computer, Features and Components of Computer, Central Processing Unit (CPU), Input & Output Devices, Storage Devices of Computer, Primary & Secondary Memory, magnetic and optical storage devices, Generation of Computer based on technology used. History of computer. Advantages & Limitations of computer. Essential concept of hardware and software, Operating system and Application programs Introduction to Windows, Basic components, and Features of Windows, Icons and types of icons, Start Menu, Start, Restart, Shutdown, taskbar, title bar, Files and Folders, Create, Rename, Delete, Copy, Move files, File Explorer basics, Control Panel / Settings, Change Date & Time, Personalize Desktop (theme, wallpaper), User Accounts basics, Install and Uninstall of applications software, Use of Task Manager, Connecting USB and basic devices. <div style="text-align: right;">(23 Classes, 25 MCQ)</div> Unit 2: Computer Proficiency (MS Word, MS Excell & PowerPoint) MS Word: Create & Manage Documents (Templates, Designs, header, footers, background, bookmark, printing options). Format Text, Paragraph & Sections. Creating Tables & Lists. Insert & Format Graphic Elements. Manage Document Changes & Security. Mail Merge Operations. MS Excel: Create, Format & Manage Worksheets & Workbooks options & settings. Apply Custom Data Formats & Validations. Apply Conditional Formatting & Filtering. Create & Manage Tables Styles, Sort & Filter. Perform operations with Formulas & Functions (Basics of Maths, Logical, Text, Statistical, Date, Time & Lookup Functions) Create, Format & Manage Charts. Shapes & Objects. Create & Manage Pivot Tables & Pivot Charts. MS PowerPoint: Create, Format & Manage Presentation using different views. Insert & format text, shapes, images, tables, charts, SmartArt & Media. Use of Themes, Transition & Animations. <div style="text-align: right;">(22 Classes, 25 MCQ)</div> Recommended Books: 1. Introduction to Computer Science (Second Edition) – Pearson Publications 2. Computer Fundamentals – Puneet Kumar & Sushil Bhardwaj, Kalyani Publishers 3. LibreOffice 5.2 Getting Started Guide – LibreOffice Documentation Team Learning Microsoft Office 2019 – Russell A. Stultz 4. Windows 10 Step by Step – Joan Lambert, Microsoft Press</p>			

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SEC - 2

Course Credit	No. of Lectures	Examination	Full Marks	Pass Marks
03	45	Semester (Final)	75	30

Instructions: There will be fifty multiple-choice questions covering the entire syllabus. Each question will be of 1.5 marks.

Year/ Semester	Paper Title: Cyber-Crime & Cybersecurity
Year - I Semester - II (Foundation or Introductory Course)	<p>Unit 1: Cyber-Crime Introduction to cyber-crime, and cyber threats: Definition and scope of cyber-crime, Types of cyber-crime (e.g., hacking, identity theft, cyberstalking), Brief Overview of cyber-crime legislation and laws, Cyber-crime ecosystem: perpetrators, victims, and enablers. Understanding Cyber Threats: Definition of cyber threats and threat actors, Categories of cyber threats: internal vs external threats, Impact of cyber threats on individuals, organizations, and society. Introduction to Malware: Definition and purpose of malware, Common types of malwares: viruses, worms, trojans, ransomware, spyware, adware, how malware spreads and infects systems. Introduction to Phishing: Definition and objectives of phishing attacks, Types of phishing, email phishing, spear phishing, whaling, smishing, vishing, Anatomy of a phishing attack.</p> <p align="right">(23 Classes, 25 MCQ)</p> <p>Unit 2: Cybersecurity Introduction to Cybersecurity: Definition and importance of cybersecurity, History and evolution of cybersecurity. Cybersecurity Principles and Concepts: Confidentiality, Integrity, and Availability (CIA Triad), Authentication, Authorization, and Accounting (AAA), Risk management basics. Network Security Fundamentals: Network components and architecture, Firewalls, VPNs, and intrusion detection/prevention systems, Secure network design principles. Cryptography Basics: Encryption and decryption concepts, Symmetric vs asymmetric cryptography, Digital signatures and certificates. Operating System and Application Security: Secure configuration and hardening, Patch management, Application vulnerabilities and protection. Identity and Access Management: User authentication methods, Access control models, Multi-factor authentication. Cybersecurity Tools and Technologies: Security Information and Event Management (SIEM), Antivirus and anti-malware tools, Penetration testing basics. Ethical and Legal Issues in Cybersecurity: Ethical hacking and responsible disclosure, Privacy laws and data protection, Cybersecurity ethics case studies. Emerging Trends and Challenges: Cloud security fundamentals, Internet of Things (IoT) security, Artificial Intelligence in cybersecurity.</p> <p align="right">(22 Classes, 25 MCQ)</p> <p>Recommended Books:</p> <ol style="list-style-type: none"> 1. Cyber Laws and Cyber Security in India – Talat Fatima. 2. The Basics of Hacking and Penetration Testing – Patrick Engebretson. 3. Cryptography and Network Security – Atul Kahate, McGraw Hill. 4. Computer Security Fundamentals – Chuck Easttom. 5. Cybersecurity for Beginners – Raef Meeuwisse.

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SEC - 3

Course Credit	No. of Lectures	Examination	Full Marks	Pass Marks
03	45	Semester (Final)	75	30

Instructions: There will be fifty multiple-choice questions covering the entire syllabus. Each question will be of 1.5 marks.

Year/ Semester	Paper Title: Digital Learning & AI Tools
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Unit 1: Digital Learning

Meaning of digital education, Evolution of digital systems; digital vs. traditional education; advantages and challenges. Information & Communication Technology (ICT), role of ICT in teaching-learning; Virtual Classroom Management: Concept of E-learning, Technologies used in E-learning, Basics of LMS (Learning Management System), Features and benefits of LMS, Introduction to Moodle, Uses of Moodle in education and training, Examples of LMS(Canvas, Edmodo, Google Classroom), Online bill payment, Ticket booking (rail, bus, air plane) Digital Assessment & Feedback: Online quizzes (Google Forms, Quizizz, Kahoot); Indian Digital Education Initiatives: SWAYAM, SWAYAM Prabha, E-Pathshala, National Digital Library (NDL India), DIKSHA, Digi Locker. Basics of E-Commerce, Advantage and disadvantage of E-commerce, Types of E-Commerce, What are Digital Payments, Benefits of cashless transactions, Types of digital payments in India, Net banking, Mobile Banking basics, UPI, Using apps like PhonePe, Google Pay, Paytm, online services, Accessing government portals, Basic services (Aadhaar, PAN, EICNET, etc.), Online form filling, Downloading certificate.

(23 Classes, 25 MCQ)

Unit 2: AI Tools

Word processing (Google Docs, MS Word); spreadsheets (Google Sheets, Excel); Canva (with AI features) - Create slides, posters, and infographics for digital-learning projects and class presentations., Google Forms for surveys/quizzes; Canva for graphics; YouTube for video content; audio recording tools, Google Workspace (drive, Docs, Sheets, Slides); Microsoft Teams; Zoom; collaborative whiteboards (Padlet) E-mail (create, receive, send, attachments), Video conferencing (Zoom, Google Meet, Microsoft Teams), Messaging apps (WhatsApp, Telegram, /Facebook, Twitter/X), Online collaboration tools (Google Docs, Google Sheets, Google Slides), Google Input Tools, Google Translate, Google Drive / OneDrive basics, Upload, share, download files, Cloud storage concepts ChatGPT / Perplexity / Gemini/ copilot (AI assistants that explain concepts, generate notes, practice questions, and help draft answers in simple language) Grammarly - AI-powered grammar, spelling, and style checker for writing assignments, reports, and project work. Quizlet: AI-assisted flashcards, practice tests, and games to revise key terms and definitions from the syllabus.

(22 Classes, 25 MCQ)

Recommended Books:

1. Digital Learning: Theories and Applications - Linda Harasim
2. ChatGPT for Teachers and Students - Arun Sharma
3. The AI Classroom - Daniel Fitzpatrick, Amanda Fox & Brad Weinstein
4. Google Workspace for Educators - Katherine Murray
5. Introduction to Artificial Intelligence - Wolfgang Ertel, Springer
6. Digital Payment Systems in India - Indian Institute of Banking & Finance (IIBF)

Year - II
Semester - III
(Intermediate Level Course)

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