



Hindi Vidya Prachar Samiti's

Ramniranjan Jhunjhunwala College

of Arts, Science & Commerce

(Empowered Autonomous College)

Affiliated to

UNIVERSITY OF MUMBAI

Program Code: RJCUCSDF

Syllabus for the

B.Sc Cyber Security & Digital Forensics (under NEP)

Course Codes: RJAECSSDF111 and RJAECSSDF121

New Program to be started from the academic year 2026-2027

Preamble

The National Education Policy 2020 aims at imparting skill-based learning and caters to the multiple entry and exit facility for the students thus empowering them to acquire knowledge at their pace. In the three-year UG program, the student has two exit options. Students also have the option for choosing the Honors program of four years study in a given discipline and later converting it to five year integrated PG degree program. As undergraduate student, he/she learns the core subject (Major), subject complementing the core subject (Minor), a course from other discipline (OEC or GEC) Vocational and Skill Enhancement course from the Major(VSEC). The remaining verticals under NEP 2020 are IKS (Indian Knowledge System), AEC (Ability Enhancement Course), VEC (Value Enhancement Course) and with progressive three years of UG, student also completes at different levels OJT (On Job Training), FP (Field Projects), CEP (Community Engagement Program) , RP (Research Project) which helps him/her in understanding their roots, application of the knowledge for the benefit of self and the society. Vertical CC (Co-curricular activities and activities related to yoga and human well-being) helps in preparing youth with good character and interpersonal relationships.

SEMESTER I

Ability Enhancement – English - I

Course Code	Course Title	Course Type	Credits	Hours
RJAEECSDF111	English - I	Ability Enhancement (Theory)	2	30

Course Objectives

Sr. No.	Course Objective
1	Enhance listening and speaking skills for professional communication.
2	Develop reading comprehension and vocabulary in technical contexts.
3	Improve writing skills for reports and emails.
4	Foster grammar and pronunciation accuracy.
5	Build confidence in group discussions relevant to cybersecurity.

Unit-wise Detailed Syllabus

Unit	Detailed Contents	Hours
I	<p>Communication Skills</p> <ul style="list-style-type: none">Listening Fundamentals: Active listening techniques, note-taking from audio lectures and cybersecurity podcasts (e.g., episodes on data breaches); practice with speed variation and accents; comprehension quizzes on key points.Speaking Essentials: Pronunciation drills using IPA (International Phonetic Alphabet) for common technical terms; intonation patterns for emphasis in explanations; basic phonetic exercises with minimal pairs.Vocabulary Building: Thematic word lists for IT/security (e.g., CIA triad terms: confidentiality, integrity, availability; synonyms/antonyms for cyber jargon like "vulnerability" vs. "patch"); root words, prefixes/suffixes (e.g., "malware" from "mal-"); contextual usage in sentences and flashcards.Interactive Activities: Role-play simple dialogues (e.g., reporting a security incident); pair discussions on podcast summaries; audio feedback sessions for self-correction.	15
II	<p>Reading and Writing</p> <ul style="list-style-type: none">Reading Strategies: Skimming for gist and scanning for specifics in short cyber articles (e.g., news on phishing attacks); inference questions on implied meanings; summary writing of 100-150 words from passages.Writing Basics: Structure of professional emails (greeting, body, closing) with cyber scenarios (e.g., alerting a team about a vulnerability); paragraph development with topic sentences, supporting details, and transitions; simple report outlines (e.g., incident summary with who/what/when/why).Grammar Foundations: Tenses review (present/past/future simple/continuous) with cyber examples (e.g., "The hacker accessed the	15

	<p>system yesterday"); articles (a/an/the) in technical contexts; prepositions of time/place (e.g., "data stored in the cloud"); common errors and correction exercises.</p> <ul style="list-style-type: none"> • Integrated Skills: Reading-to-writing tasks (e.g., read an article on ransomware, write a 200-word response); peer review of emails for tone and clarity. 	
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Course Outcomes (CO)

CO No.	Course Outcome	Bloom's Level	PSO Mapped
CO1	Recall and apply key vocabulary, grammar rules, and phonetic elements in technical contexts.	Remember (L1), Understand (L2)	PSO1, PSO5
CO2	Explain cybersecurity concepts through structured oral presentations and discussions.	Understand (L2)	PSO1, PSO3, PSO5
CO3	Apply writing techniques to compose clear emails, paragraphs, and basic reports on professional topics.	Understand (L2), Apply (L3)	PSO1, PSO3, PSO5
CO4	Analyze texts and audio for comprehension, inference, and critical discussion in group settings.	Apply (L3), Analyze (L4)	PSO1, PSO2, PSO3, PSO5
CO5	Identify and employ effective communication strategies, including active listening and peer feedback, for collaborative environments.	Understand (L2), Analyze (L4)	PSO1, PSO3, PSO5

Textbooks & References

Sr. No.	Title	Author / Source
1	English for Technical Communication	N.P. Sudharshana / Cambridge University Press
2	High School English Grammar and Composition	Wren & Martin / S. Chand
3	Technical Communication: Principles and Practice	Meenakshi Raman, Sangeeta Sharma / Oxford University Press
4	Communication Skills	Sanjay Kumar, Pushp Lata / Oxford University Press
5	English Language Teaching: Approaches, Methods, Techniques	Geetha Nagaraj / Orient BlackSwan

SEMESTER II

Ability Enhancement – English - II

Course Code	Course Title	Course Type	Credits	Hours
RJAECSSDF121	English - II	Ability Enhancement (Theory)	2	30

Course Objectives

Sr. No.	Course Objective
1	Advance speaking through structured presentations and debates on cyber ethics.
2	Enhance reading with critical analysis of technical case studies and reports.
3	Improve writing for advanced tasks like proposals, articles, and policy drafts.
4	Strengthen grammar for complex sentences, clauses, and professional tone.
5	Promote debate and feedback skills for collaborative cybersecurity discussions.

Unit-wise Detailed Syllabus

Unit	Detailed Contents	Hours
I	<ul style="list-style-type: none"> • Advanced Communication • Presentation Skills: Outlining (hook, thesis, evidence, call-to-action); visual aids (PowerPoint best practices for cyber slides); rehearsal techniques; 3-5 min timed practice on topics like "AI in Threat Detection." • Group Discussions: Structured debates (pro/con on "Surveillance Ethics"); facilitation roles, paraphrasing, summarizing viewpoints; 20-min sessions with rotation. • Advanced Vocabulary: Cyber-specific (e.g., "exfiltration," "sandboxing"); idioms/phrasal verbs (e.g., "back up data"); contextual exercises in sentences/debates. • Interactive Activities: Icebreaker talks, peer evaluation rubrics; role-plays (e.g., board meeting on breach response). 	15
II	<ul style="list-style-type: none"> • Writing and Analysis • Advanced Writing: Proposal structure (problem, solution, budget); article formats (lead, body, conclusion); policy drafts with recommendations; 300-word samples on "Cyber Policy Reforms." • Critical Reading: Annotation techniques (highlight key claims, note biases); comparative analysis of two reports (e.g., breach vs. recovery cases); inference/vocabulary in context. • Grammar Mastery: Complex structures (subordinate clauses, conditionals); voice shifts (active for impact); reported speech for summaries; error hunts in sample texts. • Integrated Skills: Read-debate-write cycle (e.g., analyze article, debate, draft reflection); collaborative editing sessions. 	15

Course Outcomes (CO)

CO No.	Course Outcome	Bloom's Level	PSO Mapped
CO1	Recall advanced grammar, vocabulary, and structures.	Remember (L1), Understand (L2)	PSO1, PSO5
CO2	Explain ideas via presentations and ethical discussions.	Understand (L2)	PSO1, PSO3, PSO5
CO3	Apply writing for proposals and reports.	Understand (L2), Apply (L3)	PSO1, PSO3, PSO5
CO4	Analyze texts for arguments and case insights.	Apply (L3), Analyze (L4)	PSO1, PSO2, PSO3, PSO5
CO5	Identify debate strategies and feedback techniques.	Understand (L2), Analyze (L4)	PSO1, PSO3, PSO5

Textbooks & References

Sr. No.	Title	Author / Source
1	Technical Writing Process	Kieran Morgan / Kindle Edition
2	Advanced Grammar in Use	Martin Hewings / Cambridge University Press
3	Communication Skills for Professionals	S.K. Jha / S. Chand
4	Effective Technical Communication	M. Ashraf Rizvi / McGraw-Hill
5	English for Professional Communication	Various / Internal Publication