GNW

GURU NANAK KHALSA COLLEGE FOR WOMEN
Model Town, Ludhiana

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SUPPORTING DOCUMENT

2.3.2 ICT enabled tools for effective teaching-learning process

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<u>Additional Information</u>

2.3.2 ICT enabled tools for effective teaching-learning process

At GNKCW, teachers leverage ICT (Information and Communication Technology) tools to elevate and streamline the teaching-learning process. These tools span a broad spectrum of digital resources and technologies, encompassing not only traditional devices like computers and tablets but also cutting-edge tools such as interactive whiteboards, educational software, online platforms, and a wealth of internet-based resources. The incorporation of ICT into teaching practices is a deliberate effort to cultivate a more engaging and interactive learning milieu.

Teachers go beyond conventional methods, utilizing multimedia presentations, videos, and interactive simulations to deliver complex concepts with visual finesse. This multifaceted approach is designed to cater to diverse learning styles and abilities, capturing students' attention and fostering deeper understanding and retention of information. Moreover, the integration of ICT tools facilitates access to an extensive array of online educational resources, ranging from e-books and articles to research papers and specialized educational websites. This empowerment allows educators to continually enrich their teaching materials, ensuring content relevance and the infusion of real-world examples into lessons.

The use of ICT enables tools allows teachers to create dynamic, learner-centered environments that fuel creativity, critical thinking, and holistic knowledge acquisition. This forward-thinking approach is a strategic preparation for the demands of the digital age, ensuring that our students are not just consumers but active participants and contributors in the ever-evolving landscape of information and technology.

Teachers participated in NEP 2020 Orientation & Sensitization Programme under Malaviya Mission Teacher Training Programme (MM-TTP) of University Grants Commission (UGC). These training programs emphasized ICT integration in daily teaching practices. Ms. Daisy Wadhwa, Assistant Professor and Head of the Department of Computer Science and Applications, underwent training on the theme of 'Information and Communication Technology'. This training was conducted as the part of 'Train the Trainers' program of the University Grants Commission (UGC). Upon being certified as a trainer for empowering fellow teachers on the use of ICT, she has conducted numerous sessions on this theme for the faculty members of various universities.

Teachers and students are encouraged to take benefit from the OER repositories as well as enroll in Online Courses/ MOOCs offered on SWAYAM/ NPTEL and other MOOC platforms. The details of MOOCs/ Online Courses completed by teachers, is presented in the next section.

List of MOOCs/ Online Courses completed by teachers during the session 2024-2025

S.No.	Name of the Teacher	Department	Title of the MOOC
1	Dr. Punpreet Kaur	Commerce	Completed the SWAYAM Online Course "Introduction to Intellectual Property" with a consolidated score of 85.4 % held from January 29, 2024 to April 30, 2024
2	Dr. Kirti Dhawan	Journalism and Mass Communication	5 Credit Course Photojournalism with a consolidated score of 91% offered by Pondicherry University on Swayam Online Platform
4	Mrs. Gagneet Pal Kaur	English	NPTEL Online Certification Course on the topic The Novel and Change held on Swayam from January 2025 to April 2025
5	Ms. Daisy Wadhwa	Computer Science and Applications	- Online course on Canva Essentials in October, 2024 offered by the Canva Design School - Online course on Advanced Learning Algorithms in March 2025. This course is authorized by DeepLearning.AI and Stanford University and offered through Coursera - Online course on Generative AI for Educators in May 2025. The course is offered by Google in collaboration with MIT RAISE initiative (Responsible AI for Social Empowerment and Education)
6	Dr. Shikha Bajaj	Fashion Designing	16-week Multidisciplinary course on Basics of Apparel industry and Entrepreneurship, offered on Swayam NPTEL portal from January 2025 to April 2025
7	Lt. Sukhjit Kaur	Political Science	- 5 credit course on Political Processes and Institutions in Comparative Perspective conducted by University of Kashmir on NPTEL-Swayam platform, with a score of 84% - 12-week NPTEL MOOC on

			Introduction to Modern Indian Political Thought with an aggregate score of 90%. This course was conducted by Indian Institute of Technology, Guwahati
8	Ms. Rachna Kanojia	Punjabi	10 week SWAYAM Online Course (January to April, 2025) 'Hindi Bhasha Aur Sampreshan' with consolidated score of 75%
9	Mrs. Jaspreet Kaur	Music Vocal	2 Credit course on Appreciating Hindustani Music" conducted by Ahemdabad University on NPTEL Swayam platform with score of 78%
10	Mrs. Yukti Khurana	Fashion Designing	- 4-week online Swayam course Professional Ethics for Higher Education Teachers, conducted by National Testing Agency (NTA) through MOOCs mode, during April-May 2024, with a score of 92 percent - 16-week Multidisciplinary course Basics of Apparel industry and Entrepreneurship, offered on Swayam NPTEL portal from January to April, 2025
11	Mrs. Chakshu	Commerce	SWAYAM Online Course on Digital Marketing with a consolidated score of 92% in the Proctored Examination held during May 2024
12	Ms. Blossom Singla	Commerce	- SWAYAM Online Course on Digital Marketing with a consolidated score of 94% in the Proctored Examination held during May 2024 - Getting Started with Microsoft Excel, an online non-credit course offered through Coursera
13	Dr. Minika Bawa	Business Management	- Create your E-commerce store with Shopify, an online non- credit project authorised by Coursera Project Network and offered through Coursera - Business Analysis and

			Process Management, an online non- credit project authorised by Coursera Project Network and offered through Coursera - Build a free website with WordPress- an online non-credit project authorised by Coursera Project Network and offered through Coursera - Search Engine Optimisation(SEO) with Squarespace- an online non-credit project authorised by Coursera Project Network and offered through Coursera - Foundations of Digital Marketing and E-Commerce, an online non-credit course authorized by Google and offered through Coursera with 96.36%
14	Dr. Ravneet Kaur	Business Management	- online course Digital Competition in Financial Services (Grade - 97.80%) from Copenhagen Business School offered through Coursera on January 18, 2025 - Online course "Leading with Digital Strategy" (Grade - 97%) from IIM Ahmedabad offered through Coursera
15	Dr. Anu Gupta	Commerce	SWAYAM Online Course on Digital Marketing with a consolidated score of 85% in the Proctored Examination held during May 2024
16	Ms. Riti Bhola	Commerce	Online Mastercourse, The Digital Marketing Fundamentals, on May 01, 2025 organized by IIDE, The Digital School
17	Ms. Arshnoor Kaur	Computer Science and Applications	NPTEL Online Certification Course titled, Blockchain and its Applications, from January to April 2025

Amidst the pandemic, Ms. Daisy Wadhwa and Mrs. Satwant Kaur initiated their own YouTube channels to create content aligned with the curriculum. They've incorporated these video resources into a flipped classroom methodology, redirecting classroom interaction time toward engaging in higher-order critical thinking activities.

S.No.	Name of the Teacher	Department	Link to YouTube Channel
1	Daisy Wadhwa	Computer Science and Applications	https://www.youtube.com/@daisywadhwa1620
2	Satwant Kaur	Computer Science and Applications	https://www.youtube.com/@satwantkaur4120

The following ICT Tools and e-Resources are used by faculty to aid the teaching-learning process.

S.No.	ICT Tool/ Resource	Type of Tool
1	Smartboards	Hardware
2	Projectors	Hardware
3	Printers and Scanners	Hardware
4	Visualizers	Hardware
5	Digital Tablets	Hardware
6	Multimedia Computer System	Hardware
7	MS PowerPoint, Google Slides	Presentation Software
8	MS Word, Google Docs	Word Processing Software
9	MS Excel, Google Sheets	Spreadsheet Software
10	Gmail, Yahoo mail etc.	Communication Software
11	WhatsApp, Telegram	Communication Software
12	YouTube	Video Aggregation System
13	Google Drive	Cloud-based Data Storage and Sharing System
14	Google Forms	Data Collection and Assessment Tool
15	Adobe Photoshop, GIMP	Designing Software
16	Google Meet, Zoom, etc.	Online Video Conferencing Software
17	Edpuzzle, H5P etc.	Interactive Learning Tools
18	Socrative	Assessment Tools
19	Mentimeter, Kahoot, Quizziz, etc.	Game-based Assessment Tools
20	Google Classroom	Learning Management System
21	Screen-casto-matic, Screen-Castify	Screen recording System for video creation
22	Canva	Graphic Design and Editing Software
23	Slack	Communication and Learning Platform
24	Openshot, Renderforest, Powtoon	Video Creation/Editing Tool

25	Audacity	Audio Editing Tool
26	Padlet	Collaboration, Brainstorming tool
27	Open Broadcast Studio	Screen recording and LIVE streaming Tool
28	Overleaf LaTeX	Scientific and Technical Documents creation Tool
29	Zotero, Mendeley	Reference Management Tool
30	Google Groups	Online Discussion Forum
31	Lucidchart, Mindmeister	Mind Map creation tools
32	Wordpress, Google Sites	Website creation and blogging tools
33	Soundcloud	Podcast/ Audio sharing tool
34	Simplified AI, Gamma, SligesGo	Artificial Intelligence enabled Presentation maker
35	ChatGPT, Gemini, Claude AI	AI-powered LLMs as pedagogical tools
36	Grammarly, Quillbot	Writing Assistance Tools
37	Elicit, Litmaps, Connected Papers	Research Assistance Tools

S.No.	E-Resources Used
1	E-journals
2	E-books
3	Educational Websites
4	SWAYAM/ NPTEL Course material
5	Educational Content available on websites
6	Internet Archives
7	YouTube Educational Videos
8	ePathshala Resources
9	National Digital Library of India
10	Shodh Ganga
11	Content available under Creative Commons License
12	Broadcast through Swayam Prabha Channels
13	OER Commons Library
14	MIT Open Courseware
15	Unsplash, Pixabay- Free Imaging Libraries
16	DOAJ- Directory of Open Access Journals
17	DOAB- Directory of Open Access Books
18	Open Textbook Library
19	TED Ed videos
20	MERLOT free educational resources
21	Virtual Labs under the aegis of National Mission on Education through Information and Communication Technology (NMEICT)
22	Spoken Tutorials- Open Source Audio-Video Tutorials