



GURU NANAK KHALSA COLLEGE FOR WOMEN
Model Town, Ludhiana

2023- 2024
SUPPORTING DOCUMENT

2.3.2 ICT enabled tools for effective teaching-learning process

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Session: 2023-2024

Additional Information

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 enabled 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.

Workshops were organized by the Department of Computer Science and Applications to empower teachers to effectively utilize digital tools. Teachers participated in NEP2020 orientation programs organized by UGC-MMTTC of various universities. These training programs emphasized ICT integration in daily teaching practices. Ms. Daisy Wadhwa, 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 MOOCs offered on SWAYAM/ NPTEL platforms. The details of MOOCs completed by teachers is presented in the next section.

List of MOOCs completed by teachers during the session 2023-2024

S.No.	Name of the Teacher	Department	Title of the MOOC
1	Dr. Punpreet Kaur	Commerce	4-week professional development programme on “National Education Policy 2020” organized by SWAYAM and IGNOU from May 16, 2023 to June 15, 2023.
2	Dr. Kirti Dhawan	Journalism and Mass Communication	4-week professional development programme on “National Education Policy 2020” organized by SWAYAM and IGNOU from May 16, 2023 to June 15, 2023.
3	Dr. Anupam Vatsyayan	English	12 week MOOC on "Elements of Literature and Creative Communication" with a 99% score. The course was conducted by IIT Kharagpur on Swayam NPTEL portal from January 22, 2024 to April 12, 2024.
4	Mrs. Gagneet Pal Kaur	English	NPTEL Online Certification Course on “Literary Criticism: From Plato to Leavis” from January 22, 2024 to April 12, 2024.
5	Ms. Daisy Wadhwa	Computer Science and Applications	Online course on ‘Supervised Machine Learning: Regression and Classification’ authorized by DeepLearning.AI and Stanford University and was offered on Coursera platform in February, 2024.
6	Mrs. Shikha Kalra	Home Science	4-week professional development programme on “National Education Policy 2020” organized by SWAYAM and IGNOU from May 16, 2023 to June 15, 2023.
7	Dr. Shikha Bajaj	Fashion Designing	4-week professional development programme on “National Education Policy 2020” organized by SWAYAM and IGNOU from May 16, 2023 to June 15, 2023.
8	Ms. Shalini Khurana	Music Instrumental	NPTEL Online Course "Appreciating Hindustani Music" on Swayam Platform in April, 2024.
9	Mrs. Amarpreet Kaur	Home Science	4-week professional development programme on “National Education Policy 2020” organized by SWAYAM and IGNOU from May

			16, 2023 to June 15, 2023.
10	Mrs. Yukti Khurana	Fashion Designing	4-week professional development programme on “National Education Policy 2020” organized by SWAYAM and IGNOU from May 16, 2023 to June 15, 2023.
11	Mrs. Baljeet Kaur	Commerce	Online course in "Business Analytics with Excel: Elementary to Advanced" from John Hopkins University offered through Coursera in February, 2024.
12	Ms. Minika Bawa	Business Management	70.5 hours course “Ultimate Microsoft Office; Excel, Word, PowerPoint & Access” on Udemy platform, July 2023.

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	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	Designing Software
16	Google Meet, Zoom, Jitsi Meet etc.	Online Video Conferencing Software
17	Edpuzzle, H5P etc.	Interactive Learning Tools
18	Edmodo	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, Jamboard etc	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	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