

Government of Pakistan

National Vocational and Technical Training Commission

Prime Minister's Hunarmand Pakistan Program

"Skills for All"



Course Contents / Lesson Plan

Course Title: Computerized Braille Composition

Duration: 6 Months

Revised Edition

Trainer Name	
Course Title	Computerized Braille Composition
Objectives and Expectations	<p>Employable skills and hands-on practice in Computerized Braille Composition</p> <p><i>As an instructor of computerized Braille composition, there are several strategies you can employ to motivate your trainees. Here are some suggestions:</i></p> <p><u>Main Expectations:</u></p> <p><i>In short, the course under reference should be delivered by professional instructors in such a robust hands-on manner that the trainees are comfortably able to employ their skills for earning money (through wage/self-employment) at its conclusion. This course thus clearly goes beyond the domain of the traditional training practices in vogue and underscores an expectation that a market-centric approach will be adopted as the main driving force while delivering it. The instructors should therefore be experienced enough to be able to identify the training needs for the possible market roles available out there. Moreover, they should also know the strengths and weaknesses of each trainee to prepare them for such market roles during/after the training.</i></p> <p>1.</p> <p>Set clear goals: Clearly communicate the learning objectives and goals for your trainees. Break down the learning process into achievable milestones, and track their progress along the way. This helps trainees see their advancement and stay motivated.</p> <p>2.</p> <p>Provide a supportive learning environment: Create a positive and inclusive atmosphere where trainees feel comfortable asking questions and expressing their challenges. Encourage peer interaction and collaboration to foster a sense of community and support among the trainees.</p>

3.

Showcase real-world applications: Highlight the practical applications and benefits of computerized Braille composition. Demonstrate how these skills can open up employment opportunities, improve accessibility, and empower individuals with visual impairments to participate fully in society.

4.

Offer varied learning experiences: Incorporate a mix of teaching methods, such as lectures, hands-on exercises, group projects, and interactive discussions. This helps cater to different learning styles and keeps the training engaging and dynamic.

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Provide constructive feedback: Offer regular feedback and praise when trainees make progress or achieve milestones. Constructive feedback helps them understand areas for improvement while recognizing their efforts and accomplishments.

6.

Gamify the learning process: Introduce gamification elements, such as challenges, quizzes, or competitions, to make the learning process more enjoyable and interactive. Reward trainees for their achievements and create a friendly competitive environment.

7.

Personalize the training: Recognize that each trainee has unique strengths, weaknesses, and learning preferences. Tailor

your instruction to accommodate individual needs and provide additional resources or guidance where required.

8.

Guest speakers and success stories: Invite guest speakers who have successfully used computerized Braille composition in their careers or personal lives. Hearing firsthand accounts of how these skills have made a difference can inspire trainees and provide role models.

9.

Celebrate milestones and achievements: Acknowledge trainees' accomplishments by celebrating milestones or organizing recognition events. This can be as simple as certificates of achievement or a small ceremony to mark the successful completion of the training program.

10.

Continuous learning opportunities: Emphasize the importance of lifelong learning in the field of computerized Braille composition. Encourage trainees to explore further resources, attend conferences, or participate in online communities related to accessibility and assistive technologies.

Remember, motivation is individual and can vary among trainees. By employing a combination of these strategies and adapting them to the specific needs of your trainees, you can create an engaging and motivating learning environment for computerized Braille composition.

Entry-level of trainees	Intermediate / Matric Science
Learning Outcomes of the course	<p>By the end of this course, students will be able to:</p> <ul style="list-style-type: none"> <input type="checkbox"/> Communicate ideas through artworks by selecting and applying media techniques and processes, subject matter, and themes <input type="checkbox"/> Demonstrate a verbal-working use of the vocabulary relating to computerized Braille composition <input type="checkbox"/> Develop an understanding of the properties and the preparation of composition <input type="checkbox"/> Respond aesthetically to artworks based upon their personal experience and cultural values <input type="checkbox"/> Understand the role and functions of computerized Braille composition.
Course Execution Plan	<p>The total duration of the course: 6 months (26 Weeks) Class hours: 5 hours per day Theory: 20% Practical: 80% Weekly hours: 25 hours per week Total contact hours: 650 hours</p>
<p>Companies offering jobs in the respective trade</p> <ol style="list-style-type: none"> 1. transcription Pakistan association of blind, 2. Pakistan blind resource foundation 3. National books foundation of Pakistan 4. Punjab and KPK brail Press. 5. Special education department 6. Social welfare ministry Pakistan 7. HEIs 8. OPDs 9. International organization 	
No of Students	25
Learning Place	Classroom / Lab

Scheduled Weeks	Module Title	Days	Learning Units	
Week 1	Introduction to Braille and Assistive Technologies	Day 1	Introduction to Braille system	
		Day 2	History and significance of Braille	
		Day 3	<ul style="list-style-type: none"> - Overview of assistive technologies for visually impaired individuals <p>Introduction to Braille embossers and Braille displays</p>	
		Day 4		
		Day 5	Academic linkages and need based analysis	

Week 2	Braille Basics	Day 1	- Braille alphabet and punctuationmarks
		Day 2	Braille contractions and abbreviations
		Day 3	Writing and reading Braille characters

		Day 4	Braille formatting and layout
		Day 5	<i>Revision and and reporting</i>
Week 3	Braille Translation Software	Day 1	Introduction to Braille translation software
		Day 2	- Using Braille translation software to convert text into Braille

		Day 3	<ul style="list-style-type: none"> • Editing and proofreading Brailledocuments
		Day-4	<i>Echo system</i>
		Day-5	<i>Revision</i>
Week 4	Braille Embossersand BrailleDisplays	Day 1	- Types of Braille embossers andBraille displays
		Day 2	Setting up and configuring Braille embossers and displays
		Day 3	<ul style="list-style-type: none"> ▪ Using Braille embossers and displays for Braille output andinput

		Day 4	<i>Printing material</i>
		Day 5	<i>Revision</i>
Week 5	Document Conversion	Day 1	Converting printed text into Braille using scanners and OCR software
		Day 2	Importing and exporting Braille files
		Day 3	Editing and formatting converted Braille documents
		Day 4	<i>Relevant market review</i>
		Day 5	<i>Revision</i>
Week 6	Braille Music Notation	Day 1	Introduction to Braille music notation

		Day 2	Reading and writing music in Braille
		Day 3	<i>In Person comments</i>
		Day 4	<ul style="list-style-type: none"> • <i>Report writing</i>
		Day 5	<ul style="list-style-type: none"> • <i>Revision</i>
Week 7	Nemeth Braille Code for Mathematics	Day 1	Introduction to Nemeth Braille Code
		Day 2	Transcribing mathematicalequations and symbols into Braille

		Day 3	Using Nemeth code software formathematical Braille notation
		Day 4	<i>Revision/soft codes</i>
		Day 5	
Week 8	Braille Printing andProduction	Day 1	Techniques for printing Brailledocuments
		Day 2	Braille production processes and quality control
		Day 3	Braille bookbinding and finishingtechniques
		Day 4	<i>Revision</i>

		Day 5	<i>Revision</i>
Week 9	Assistive Technologies for Braille Users	Day 1	Overview of Braille notetakers and electronic Braille devices
		Day 2	Accessible software and apps for Braille users
		Day 3	Assistive technologies for Braille literacy and education
		Day 4	<i>Revision</i>
		Day 5	<i>Revision</i>
Week 10	Braille and Digital Accessibility	Day 1	Introduction to web accessibility and Braille

		Day 2	Creating accessible Braille content for websites and digital platforms
		Day 3	Testing and evaluating the accessibility of Braille materials
		Day 4	<i>Revision</i>
		Day 5	<i>Revision</i>
Week 11	Braille Translation for Different Languages	Day 1	Braille translation for languages other than English
		Day 2	Challenges and considerations for Braille translation in different languages

		Day 3	Resources and tools for multilingual Braille production
		Day 4	<i>Revision</i>
		Day 5	<i>Revision</i>
Week 12	Braille Transcription Guidelines and Ethics	Day 1	International guidelines for Braille transcription
		Day 2	Ethical considerations in Braille transcription
		Day 3	- Professional standards and certifications in Braille transcription
		Day 4	<i>Revision</i>
		Day 5	<i>Revision</i>

Week 13	Computerized Braille Composition	Day 1	Overview of Computerized Braille Composition
		Day 2	Computerized Brille Intro
		Day 3	Computerized Braille History
		Day 4	<i>Review</i>
		Day 5	<i>Report</i>
Week 14	Overview of Computerized Braille	Day 1	Overview of Computerized Braille

Week 15	Overview of Computerized Braille	Day 1	Overview of Computerized Braille
		Day 2	Computerized Braille
		Day 3	Computerized Braille uses
		Day 4	<i>Report</i>
		Day 5	<i>Review</i>
Week 15	Braille Composition	Day 1	Introduction to Braille Composition

Week 16	Braille Composition	Day 1	Braille Composition Overview
		Day 2	Braille Composition Apps
		Day 3	Braille Composition Apps Uses
		Day 4	<i>Revision</i>
		Day 5	<i>Report</i>
Week 16	Computerized Braille Composition	Day 1	Computerized Braille Composition

Week 17	Computerized Braille	Day 1	Introduction to Computerized Braille
		Day 2	Computerized Braille Software
		Day 3	Computerized Braille Software Uses
		Day 4	<i>Report</i>
		Day 5	<i>Review</i>
Week 17	Computerized Braille	Day 1	History of Computerized Braille

Week 18	Braille Composition	Day 1	Overview of Braille Composition
		Day 2	Braille Composition
		Day 3	Composition Web Braille
		Day 4	<i>Revision</i>
		Day 5	<i>Review</i>
Week 18	Braille Web Digital Accessibility	Day 1	Introduction to web accessibility and Braille

Week 19	Web Braille	Day 1	Introduction to Web Braille
		Day 2	Web Braille
		Day 3	Braille Composition
		Day 4	<i>Report</i>
		Day 5	<i>Revision</i>
Week 19	Digital Accessibility	Day 1	Introduction to web Braille

Week 20	Braille Software	Day 1	Braille Software introduction
		Day 2	Braille Software
		Day 3	Braille Software's Uses
		Day 4	<i>Report</i>
		Day 5	<i>Review</i>
Week 20	Braille and Digital Accessibility	Day 1	Introduction to web accessibility and Braille

Week 21	Braille Devices	Day 1	Overview of Braille devices
		Day 2	Accessible software
		Day 3	Assistive technologies Devices
		Day 4	<i>Report</i>
		Day 5	<i>Revision</i>
Week 21	Braille and Digital Accessibility	Day 1	Introduction to web accessibility and Braille

Week 22	Braille Devices	Day 1	Electronic Braille devices
		Day 2	Apps for Braille users
		Day 3	Braille literacy and education
		Day 4	<i>Review</i>
		Day 5	<i>Revision</i>

Week 23	Technologies Braille Users	Day 1	Braille devices
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		Day 2	Software Braille users
		Day 3	Technologies for Braille
		Day 4	<i>Revision</i>
		Day 5	<i>Review</i>

Week 24	Braille	Day 1	Overview of Braille
		Day 2	Braille users

		Day 3	Brailleliteracy
		Day 4	<i>Report</i>
		Day 5	<i>Revision</i>

Week 25	Braille Composition Users	Day 1	Electronic Braille devices
		Day 2	Apps forBraille users
		Day 3	Education

		Day 4	<i>Revision</i>
		Day 5	<i>Review</i>

Week 26	Braille Users	Day 1	Overview of Braille notetakers
		Day 2	Accessible software
		Day 3	Brailleliteracy and education
		Day 4	<i>Review</i>

		Day 5	<i>Report</i>
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Tasks For Certificate in Computerized Braille Composition

Task No.	Task	Description	
		<p>Note: The weekly distribution of tasks and practical exercises should be incorporated into the lesson plan to ensure hands-on practice and assessment of the trainees' skills. The lesson plan should also include assessments, quizzes, and projects to evaluate the trainees' progress throughout the course. Additionally, motivational lectures, success stories, and case studies can be included to inspire and engage the trainees in their learning journey</p>	
1.		1. Subject(s):	
2.		2. Topic or Unit of Study:	
		3. Grade/Level:	
		4. Objective:	
3.		<p>Reading Rainbow Tip: Think about how you will INSPIRE your students and consider what you want them to take away from today's lesson plan.</p> <p><input type="checkbox"/></p>	
4.		5. Time Allotment:	
5.			
6.		<i>IMPLEMENTATION</i>	
7.	Learning Context		
8.		<ul style="list-style-type: none"> Reading Rainbow Tip: Have your students learned everything they need to know in order to complete this lesson? This might be a good time to review some previous lessons so that they feel prepared to learn something exciting and new 	
9.	Procedure	<input type="checkbox"/>	

10.	a. Anticipatory Set	<input type="checkbox"/>	
11.	<p>Reading Rainbow Tip: Do something to really GRAB their attention! Find a really great book, use a quick video clip, or a sing a song that relates to this lesson plan. Here's where you can spark a child's love for learning.</p>		
12.	b. Direct Instruction c. Guided Practice d. Check for Understanding	<input type="checkbox"/>	
13.	<p>Reading Rainbow Tip: Ask lots of questions throughout your lesson to make sure that your students are feeling comfortable with all of this exciting new information.</p>		
14.	<input type="checkbox"/>		
15.	e. Independent Practice f. Closing	<input type="checkbox"/>	
16.	<p>Reading Rainbow Tip: This is the perfect opportunity to open up the class for a group discussion. Ask your students questions that help them realize the importance of today's lesson with questions like, "how will you use this information in your everyday lives?"</p>		
17.			
18.	DIFFERENTIATED INSTRUCTION		
19.	<p>Reading Rainbow Tip: Try to keep in mind that children learn in many different ways. By consciously thinking about this, you'll be able</p>		
20.			

21.	<p>to use different teaching techniques to reach as many children as possible in your classroom</p> <ul style="list-style-type: none"> a. Visual Learners b. Auditory Learners c. Kinesthetic Learners d. ESL Students e. At-risk Students f. Advanced Learners 	
22.	MATERIALS & RESOURCES	
23.	<p>Reading Rainbow Tip: When choosing supplementary materials and resources for your lesson plan (books, videos, etc.), try to put yourself in the shoes of your students. Find resources that ENHANCE your lesson and make your instruction an inviting learning experience for your class!</p>	
24.	<ul style="list-style-type: none"> a. Instructional Materials: b. Resources: 	
ASSESSMENT		
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