

Syllabus For the trade  
of  
**PHOTOGRAPHER**

(SEMESTER PATTERN)

UNDER  
CRAFTSMAN TRAINING SCHEME

Designed in: 2013

By  
Government. of India  
**CENTRAL STAFF TRAINING AND RESEARCH INSTITUTE**  
Directorate General of Employment & Training  
Ministry of Labour & Employment  
EN 81, SECTOR – V, SALT LAKE CITY,  
Kolkata – 700 091.

List of members of Trade Committee meeting for the trade of Photographer held on 15-12-2011, at Chandigarh.

<b>Sl.No</b>	<b>Name &amp; Designation S/Shri/Smt</b>	<b>Organisation</b>	<b>Remarks</b>
1.	Sukhdev Singh	Joint Director, Advanced Training Institute, Gobind Nagr, Kanpur PIN 208022	Chairman
2.	C Suchindran	Delhi Photography Club Building No 2, Top floor Haus Khas Village New DELHI PIN 110016	Member
3.	Dr. Swinder Singh	Professor Photography wing, Punjab University Chandigarh.	Member
4.	Jesu Jaskanwar Singh	Assistant Professor Photography wing, Punjab University Chandigarh.	Member
5.	Inderjit Singh Khera	Retired Principal, ITI Aman Colony, Defance Bandh Near Old Income tax Office Sirhind Mandi, distt Patiala. Pin. 140406	Member
6.	Nirmal Singh	Vocational Instructor Govt ITI RAJPURA, Distt Patiala (Pb) Pin 140401	Member
7.	Ajay Thakur	Vocational Instructor Govt ITI Mandi (HP) pin 175001	Member
8.	Opinder Saini	Photographer business Man 124 Gurbax colony Patiala. 147001	Member
9.	Tejbans Singh Jauhar	Tejees Studio-17, (Photographic Lab owner) SCO 11, Sector 17E Chandigarh Pin 160017	Member
10.	Vikram walia	Photographer business Man 230 phase 1 Mohali	Member
11.	H S Nigam	Photographic Instructor, Advanced Training Institute, Gobind Nagr, Kanpur PIN 208022	Member

*List of members attended the Workshop to finalize the syllabi of existing CTS into Semester Pattern held from 6<sup>th</sup> to 10<sup>th</sup> May'2013 at CSTARI, Kolkata.*

Sl. No.	Name & Designation	Organisation	Remarks
1.	R.N. Bandyopadhyaya, Director	CSTARI, Kolkata-91	Chairman
2.	K. L. Kuli, Joint Director of Training	CSTARI, Kolkata-91	Member
3.	K. Srinivasa Rao, Joint Director of Training	CSTARI, Kolkata-91	Member
4.	L.K. Mukherjee, Deputy Director of Training	CSTARI, Kolkata-91	Member
5.	Ashoke Rarhi, Deputy Director of Training	ATI-EPI, Dehradun	Member
6.	N. Nath, Assistant Director of Training	CSTARI, Kolkata-91	Member
7.	S. Srinivasu, Assistant Director of Training	ATI-EPI, Hyderabad-13	Member
8.	Sharanappa, Assistant Director of Training	ATI-EPI, Hyderabad-13	Member
9.	Ramakrishne Gowda, Assistant Director of Training	FTI, Bangalore	Member
10.	Goutam Das Modak, Assistant Director of Trg./Principal	RVTI, Kolkata-91	Member
11.	Venketesh. Ch., Principal	Govt. ITI, Dollygunj, Andaman & Nicobar Island	Member
12.	A.K. Ghate, Training Officer	ATI, Mumbai	Member
13.	V.B. Zumbre, Training Officer	ATI, Mumbai	Member
14.	P.M. Radhakrishna pillai, Training Officer	CTI, Chennai-32	Member
15.	A.Jayaraman, Training officer	CTI Chennai-32,	Member
16.	S. Bandyopadhyay, Training Officer	ATI, Kanpur	Member
17.	Suriya Kumari .K , Training Officer	RVTI, Kolkata-91	Member
18.	R.K. Bhattacharyya, Training Officer	RVTI, Trivandrum	Member
19.	Vijay Kumar, Training Officer	ATI, Ludhiana	Member
20.	Anil Kumar, Training Officer	ATI, Ludhiana	Member
21.	Sunil M.K. Training Officer	ATI, Kolkata	Member
22.	Devender, Training Officer	ATI, Kolkata	Member
23.	R. N. Manna, Training Officer	CSTARI, Kolkata-91	Member
24.	Mrs. S. Das, Training Officer	CSTARI, Kolkata-91	Member
25.	Jyoti Balwani, Training Officer	RVTI, Kolkata-91	Member
26.	Pragna H. Ravat, Training Officer	RVTI, Kolkata-91	Member
27.	Sarbojit Neogi, Vocational Instructor	RVTI, Kolkata-91	Member
28.	Nilotpal Saha, Vocational Instructor	I.T.I., Berhampore, Murshidabad, (W.B.)	Member
29.	Vijay Kumar, Data Entry Operator	RVTI, Kolkata-91	Member

### **General information**

1. **Name of the Trade** : PHOTOGRAPHER
2. **NCO Code No.**
3. **Duration** : 1 Year ( 2 semesters)
4. **Power Norms** : 7 KW
5. **Space Norm** : 48 sq. mtr.
6. **Entry Qualification** : Passed 10th class examination
7. **Unit Strength** : 16 Trainees
8. **(A) Instructor's/Trainer's Qualification** : (i) Diploma in Photography + 2 year Experience  
(ii) NTC/NAC Photography trade under NCVT+ 3 year working experience
- 8 **(B) Desirable qualification** : Preference will be given to a candidate with Craft Instructor Certificate

**Note:** At least one Instructor must have degree /Diploma in the relevant experience.

Syllabus for the trade Of “**Photographer**” Under C.T.S

Duration : Six months

**First Semester**

**Semester Code: PHG: SEM I**

Still Photography

Week no.	Trade Practical	Trade Theory
1-2	Introduction to Training Familiarization with the institution. Importance of trade training. Instrument used In the trade. Handling of TLR,SLR & Digital cameras, manual & autofocus	<b><u>Introduction to trade / Brief History of Photography</u></b> Introduction & Objective of trade, Importance of safety and general precautions observed in the lab. Care & maintenance of equipment & material used in trade. Definition of photography. Introduction to single lens reflex camera & Digital camera
3-4	Use of natural light , studio lights, tungsten light, fluorescent light, single & multiple electronic, flash, reflectors, exposure, meters, studio flash & accessories and guide number.	<b><u>Image formation</u></b> Light sources for photography. natural light, indoor lights and studio lights. Colour temperature & colour balance. light visible spectrum .
5-6	Use of Panchromatic, Orthochromatic and color films various speeds.	<b><u>Documenting of Image</u></b> Knowledge about different type of films & film speed .
7-10	Practice on different of composition. Taking photographs using different types of lenses using different aperture, shutter speed setting for still, Video camera, CCTV and spy camera. taking photographs of portrait, studio photography, commercial/Advertisement photography, sports photography, fashion photography, slow and fast moving objects, functions, machines and processes , land scape, architecture, night photography children, animal, birds, shooting spot etc. by digital camera.	<b><u>Camera , parts &amp; its Setting</u></b> Knowledge of visual composition and aesthetic approaches. Knowledge of still digital camera, Video camera, CCTV and spy camera, its parts and accessories, knowledge of different types of lenses & their uses. Wide angle /fish eye lenses. Idea on lens coating covering power, aberrations of lens perspective. Conception of aperture , shutter speed , types of shutter , depth of field, use of lens hood, tripod, self timer. Filters- its type and effects . Concept about traditional and digital dark room.
11-15	Use of computer operating system , concept of internet, sending photographs through e-mail. Working of inkjet printer, and laser printer.	<b><u>Soft Skills</u></b> Knowledge of computer, Hardware and software, operating system , Use of internet, email etc. Specifications, selection & application of Computer, inkjet printer, Laser printer, scanner, pen drive, UPS, CD etc. knowledge of

		software required for computer and printers etc. working of different printers such as DOT matrix, inkjet, deskjet, laser printer. Print editing with photo editing software.
16-20	<p>Ability of taking printouts of photographs taken by a digital camera from computer printer. Concept of image transportation- floppy, CD &amp; Zip.</p> <p>Practical in out door to be carried out for natural, wild life. activities to get outdoor espouser.</p>	<p><b><u>Processing of Image</u></b>  Knowledge of computer application regarding process of taking printouts of photographs taken thought a digital camera. Knowledge of different types of photo paper required of printing. Knowledge of different types of printer in respect of their resolution.</p>
21-24	<p>Ability to scan photographs and capture frames through scanner and capture card, editing retouching of photographs using photo editing software.</p>	<p><b><u>Scanners &amp; Digital camera</u></b>  Knowledge of other different type of capturing methods through scanners, frame grabber with digital camera. Knowledge of photo editing through different types of updated photo editing software.</p>
25	Project work / Industrial Visit (optional)	
26	Examination	

Note :- Practical should be carried out outside the institute to get exposure out shooting to natural activities and should be followed.

SYLLABUS FOR THE TRADE OF PHOTOGRAPHER UNDER C.T.S

Duration :Six month

Second Semester

Semester Code: PHG: SEM II

(Video Photography)

	<b>Trade Practical</b>	<b>Trade Theory</b>
1	Related practical.	<b><u>Revision of first Semester</u></b> Concept of film camera, Digital camera, Video camera computer hardware and software. Lab set up details, lights and sensors used in photographic lab etc.
2-3	Related practical on photo & video activity	<b><u>Quality tools Concepts</u></b> Need of the quality, quality concepts, Total quality management (TQM), introduction to ISO 9000, ISO 14000, ISO 18000, 5S, kaizen, Quality standards, ISO/BIS specifications, Statistical quality Control, Quality assurance, TQC, measurement /calibration.
4-8	Handling of digital video camera and cameras and their accessories, camera movement – Pan – tilt- Zoom. Dimension of image. some basic camera “do’s”. Before the shoot, during the shoot, video camera or camcorder operating techniques, after the shoot. field of view. <b>Practice on still and video camera outside the institute on natural and wild photography and week end assignment must be given and monitored regularly.</b>	<b><u>Video &amp; Video technology</u></b> Introduction to Video, How camera works. Light to video image. Camera mounts to movement. camera operation and picture composition. use of video as communication medium, latest video technology, types of video cameras their various formats, types of various video tapes. Principle of video recording. Methods to shoot with moving camera.
9-10	<u>Lighting of different areas of video shooting.</u> Practice on three point lighting, indoor and outdoor lighting etc. practice on hard and soft lighting. Single camera lighting , bounce lighting silhouette lighting. Use of reflectors & screamer though use of camera. Lighting function terminology.	<b><u>Lightening for still &amp; video photography.</u></b> Knowledge of different types of video lighting. Concept of power distribution depending upon the requirement of the light output. Selection of Shooting camera. Detailed light source including natural and in studio lights instruments, Field lighting instruments. Light intensity. Types of lamps.

11-12	Concept of audio video recording , mixing , editing, dubbing of sound , using different types microphones.	<b><u>Video and Audio productions.</u></b> Knowledge of sound techniques. Recording methods, Video tape recording insert, sound mixing , editing , audio dubbing etc.
13-14	<b><u>Planning &amp; Direction</u></b> Knowledge of idea and planning for production , qualities of a production , principle of direction during production, objective to be coped with during pre-production, production and post production etc. equipment requisition and script	
15-19	Shooting of different areas and topics such as sports , wildlife, modeling, drama, documentary, serial, story board making, news, interview, seminar/ workshop, industrial, live broadcasting, musical event ,Advertisement etc.	<b><u>Shooting</u></b> Shooting with Zoom function, macro function, High speed shutter function & Automatic and manual focus function. Study of Idea of different areas to be selected for shooting .
20-21	<b><u>Employability cum Entrepreneurship</u></b> Entrepreneur, Need of entrepreneur, Employability cum Entrepreneurship skills. advantages of Entrepreneurship. Project to set up his own Photographer shop. Self /bank financing schemes. Success stories of entrepreneur. Book keeping, Introduction to accountancy, Guide lines to manage the business.	
22-24	<b>Project work (Script Base Video Film Making) Visit to Lab.</b>	
25	<b>Revision</b>	
26	<b>Final Examination.</b>	



**TRADE: PHOTOGRAPHER**

## LIST OF TOOLS &amp; EQUIPMENT

## A. TRAINEES TOOL KIT FOR 16 + ONE TRAINEES

<b>Sl no</b>	<b>Item</b>	<b>Qty. in Nos.</b>
1.	35mm Single Lens Reflex Camera Body (Film, Analog, Manual Only) Kit	1 no
2.	35mm Single Lens Reflex Camera Body (Film, Digital, Auto + Manual) Kit	1 no
3.	Digital SLR Camera (APS-C) Body Only, HD Video Capable, with Bundled Accessories & Software	3 nos
4.	AF Normal Lens 50mm w/Skylight 1A Filter, Hood (for 35mm SLR/DSLR)	1 no
5.	AF Zoom Lens 24-85mm w/Skylight 1A Filter, Hood (for 35mm SLR/DSLR)	1 no
6.	AF Zoom Lens 18-55mm w/UV Filter, Hood (for APS-C DSLR only)	1 no
7.	AF Zoom Lens 18-70mm w/UV Filter, Hood (for APS-C DSLR only)	1 no
8.	AF Zoom Lens 18-105mm w/UV Filter, Hood (for APS-C DSLR only)	1 no
9.	AF Zoom Lens 55-300mm w/UV Filter, Hood (for APS-C DSLR only)	1 no
10.	AF Zoom Lens 80-300mm w/UV Filter, Hood (for 35mm SLR/DSLR)	1 no
11.	AF Wide-Angle Lens 24mm w/Skylight 1B Filter, Hood (for 35mm SLR/DSLR)	1 no
12.	AF Wide-Angle Lens 35mm w/Skylight 1B Filter, Hood (for 35mm SLR/DSLR)	1 no
13.	AF Fisheye Lens 16mm w/built in Hood (for 35mm SLR/full-frame DSLR only)	1 no
14.	AF Fisheye Lens 10.5mm w/built in Hood (for APS-C DSLR only)	1 no
15.	AF Portrait Lens 90mm w/Macro, Hood (for 35mm SLR/DSLR)	1 no
16.	AF Telephoto Lens 300mm, w/UV Filter, Hood (for 35mm SLR/DSLR)	1 no
17.	Teleconverter 1.4x Nikon Mount (for 35mm SLR/DSLR Lenses)	1 no
18.	Teleconverter 2x Nikon Mount (for 35mm SLR/DSLR Lenses)	1 no
19.	Filters (different, 10 types: ND, Graduated Nd, Star, Starburst, multi-image, UV, Skylight 1A/1B, Circular Polarizer, Linear Polarizer, Colour filter set, 80B, 81EF, 85, etc., both for video & still)	1 each
20.	Macro Auto Extension Tubes Set for Nikon Cameras	2 each
21.	Digital Compact Camera w/Fixed 24x Zoom Lens (HD Video Capable) Kit	2 nos
22.	HD Video Camcorder Hard-Disk Based w/Bundled Accessories, SW	2 nos
23.	HD Video Camcorder Memory-Card Based w/Bundled Accessories, SW	1 no
24.	Video Camcorder Mini-DV Tape-Based w/Bundled Accessories, SW	2 nos
25.	Tripod w/3-way Pan-Tilt Head for SLR/DSLR/Camcorders	3 nos
26.	Tripod w/3-way Pan-Tilt Head for SLR/DSLR/Camcorders (Low Base)	2 nos
27.	Monopod w/Ball Head for SLR/DSLR/Long Telephoto Lenses	2 nos
28.	Cable Release for Nikon FM10 35mm Manual SLR	1 no

29.	Remote Trigger Release for Nikon F6 35mm Film SLR	1 no
30.	Remote Trigger Release for Nikon D7000 DSLR	3 nos
31.	Flash Gun (Thyristor) Master/Slave (For Nikon)	1 no
32.	Flash Gun (Thyristor) Stand-alone/Slave (For Nikon)	3 nos
33.	Studio Lights	4 nos
34.	Spot Lights	2 nos
35.	Electronic Umbrella Lights	3 nos
36.	Umbrella Light w/Boom with Tail & Stand	2 nos
37.	Exposure Meter (Can be used for both Still & Video)	2 nos
38.	Studio Space (Room, 30' L x 25' B x 18' H), w/Sound-Proofing, Lighting Grid, Cyclorama (Blue/Green-Screen), Linoleum Flooring, Air-Conditioned .	1 room
39.	Split AC (2 Ton)	3 nos
40.	Classroom Furniture Chairs with writing pad	20 nos
41.	Studio Furniture (Working Table Moulded)	5 nos
42.	Workstation PC Hardware (Minimum core2duo, 4GB RAM, 500GB HDD, DVD Writer, Video Capture Card, IEEE 1394 Firewire Port)	4 nos
43.	Workstation PC Software, Operating System	4 nos
44.	PC Software, AV Applications (Photo Editing, Video Editing, Special Effects, Audio Editing, Audio Sequencing, etc)	4 nos
45.	PC Software, Productivity Applications (Office, Accounting)	4 nos
46.	PC Software, Content Creation Applications (Illustration, Animation, 2D/3D Graphics, Titling, etc.)	4 nos
47.	PC Software, Security Applications (Antivirus, Anti-Malware, Firewalling, etc., if needed)	4 nos
48.	Local Area Networking (Network Backbone, Switch, etc., Installation)	As Required
49.	Inkjet (Full-Color Photo Quality) Printer/Scanner/Copier w/35mm Scanning	2 nos
50.	Laser (Color) Printer	2 nos
51.	Standalone Flatbed Scanner w/35mm & 120 film-slide scanning capability	1 no
52.	UPS 6KVA (1 Phase In, 1 Phase Out) w/isolation, & 16x65AH Batteries	1 no
53.	Computer Room Furniture (Tables for PCs, Printers & Scanner)	4 nos
54.	Revolving chairs for Computer	4 nos
55.	CD-Writable	80 nos
56.	CD-Rewritable	40 nos
57.	DVD-Writable	80 nos
58.	DVD-Rewritable	40 nos
59.	USB Pendrive 8GB	11 nos
60.	USB Pendrive 16GB	11 nos
61.	USB Portable Hard-Disk 500GB	4 nos
62.	Reflectors (Circular, Portable folding type, White/Silver/Gold)	2 each
63.	Cool Lights	2 nos

64.	Multi 10 w/Fresnel lens, Stand		3 nos
65.	Multi 20 w/Fresnel lens, Stand		2 nos
66.	Hard Soft with Stand		3 nos
67.	Sun Gun w/handle		6 nos
68.	Portakit Portable Lighting Kit		3 nos
69.	Mini-DV Tapes		50 nos
70.	DV Tape Deck with Editing Function (Takes both DV & Mini-DV)		1 no
71.	Mini-DV Tape Deck with Editing Function (Takes only Mini-DV)		1 no
72.	Playback Adapter for Panasonic AG-DVX100B Video Camera		1 no
73.	Extra Batteries/Charger for Digital 35mm film/DSLR Bodies		6 nos
74.	Extra Batteries/Charger for Sony Digital Handycam Cameras		6 nos
75.	Extra Batteries/Charger for Panasonic AG-DVX100B Video Cameras		6 nos
76.	Microphone Directional Super-Cardioid Condenser Shotgun/Boom		2 nos
77.	Microphone Dynamic Cardioid		2 nos
78.	Microphone Lavalier Lapel Cardioid		2 nos
79.	Track & Trolley Set (30', Straight)		1 no
80.	Track & Trolley Set (30', Circular)		1 no
81.	Video Cables		As Required
82.	Audio Cables		As Required
83.	Power Extension Boards (3-wire, 75Ω)		As Required
84.	Coaxial Cable (w/BNC Connectors)		As Required
85.	Fire Extinguishers		2 nos
86.	OHP (Overhead Projector) w/Screen & Stand	<i>OPTIONAL</i>	1 no
87.	LCD Projector Portable	<i>OPTIONAL</i>	2 nos
88.	Digital Prolab Photographic Processing Unit	<i>OPTIONAL</i>	1 no
89.	120 Rollfilm 6x6 Twin Lens Reflex Camera (Film, Analog, Manual)	<i>OPTIONAL</i>	1 no