

MSDE(DGT)-19/02/2023-CD (E58176)
Government of India
Directorate General of Training (DGT)
Ministry of Skill Development & Entrepreneurship (MSDE)

Kaushal Bhawan, Chanakyapuri
New Delhi – 110023

Dated: 14th February 2025

To

- (i) The Commissioners/Directors, dealing with Craftsmen Training Scheme (CTS) of all States/ UTs.
- (ii) Regional Directors, All RDSDEs.
- (iii) Principals, All NSTIs/NSTI(W) & IToTs.

Sub: Introduction of new courses/ revision of existing courses under the Craftsmen Training System (CTS) in ITIs/NSTIs/IToTs (Govt. & Pvt.) from the Session 2024-25 Onwards – **Reg.**

Madam/Sir,

With India's increasing emphasis on building a strong skill development ecosystem, the Directorate General of Training (DGT) has been taking proactive steps to develop a structured framework for skill development programs. These include introduction of new courses (both long-term and short-term), revision of existing curricula, alignment of courses with NCrF, mandatory 150 hrs OJT/project work etc. These measures aim to equip trainees with industry-relevant competencies, ensuring they are well-prepared for the evolving job market.

In line with these initiatives, DGT has developed following new courses (both long term and short-term courses), revised existing courses under Craftsmen Training Scheme (CTS) and Craft Instructor Training Scheme (CITS):

1. New Courses Introduced:

In alignment with emerging technological advancements and industry demands, the Directorate General of Training (DGT) has developed new-age/future skill courses under the Craftsmen Training System (CTS). These courses aim to provide skill training in the IT & ITeS and Environmental Science sectors.

Sl. No.	Sector	Name of Course	Entry Qualification	Duration	NSQF Level	Year of NSQF Approval
1.	IT & ITeS	Industrial Internet of Things (IIoT) Technician	10th Passed	2 Years	4.0	2024
2.	Environmental Science	Green Hydrogen Production Technician	10th Passed	1 Year	3.5	2024

The complete list of CTS trades along with their detailed curricula can be accessed at <https://dgt.gov.in/CTS> . Additionally, the list of New Age/Future Skills courses under CTS is provided in the annexure.

2. Revised Courses:

The DGT has updated the following existing courses under the CTS to align with evolving industry demands:

Sl. No.	New Name of the Trade	Old Name of the Trade	Duration	NSQF Level
1.	Virtual Analysis and Designer - FEM (Finite Element Method)	Basic Designer and Virtual Verifier	Two Years	4.0
2.	Engineering Design Technician	Artisan Using Advanced Tool	One Year	3.5
3.	CNC Machining Technician	Advanced CNC Machining Technician	Two Years	4.0
4.	Additive Manufacturing (3D Printing) Technician		One Year	3.5
5.	Industrial Robotics & Digital Manufacturing Technician		One Year	3.5
6.	Manufacturing Process Control and Automation Technician		One Year	3.5
7.	Mechanic Electric Vehicle		Two Years	4.0
8.	Industrial Automotive Manufacturing Technician		Two Years	4.0
9.	Aeronautical Structure and Equipment Fitter		Two Years	4.0

3. Additional 240-Hour Short-Term Courses:

To enhance opportunities for CTS and Craft Instructor Training Scheme (CITS) students, 240 hours have been provisioned to enable trainees to either opt for add-on short-term courses or pursue a 10th/12th class certificate alongside their ITI certification. To enable the implementation of these add-on short-term courses, the DGT had empowered State Skill Development & Entrepreneurship Committees (vide letter MSDE(DGT)-19/03(02)/2022-CD dated 15th August 2022 and 16th June 2023) to offer Short-Term Training (STT) courses in ITIs from the academic session 2022-23 onwards

These newly developed short-term courses, approved by NCVET, are now available for implementation from the academic session 2024-25 onwards:

Sl. No.	Sector	Name of Short-Term Course	Entry Qualification	Duration	NSQF Level	Year of NSQF Approval
1.	Electronics	Fundamentals of IoT Applications and Maintenance	10th Passed	240 Hrs	3.5	2024
2.	Electronics	Fundamentals of Semiconductor Technology	10th Passed	240 Hrs	3.5	2024
3.	IT & ITeS	Basics of Cybersecurity	10th Passed	240 Hrs	3.5	2024
4.	IT & ITeS	Basics of Generative Artificial Intelligence (AI)	10th Passed	240 Hrs	3.5	2024
5.	IT & ITeS	Basics of IT Skills	10th Passed	240 Hrs	3.5	2024
6.	Capital Goods	Fundamentals of Computer-Aided Manufacturing (CAM)	10th Passed	240 Hrs	3.5	2024

7.	Capital Goods	Fundamentals of CNC Programming and Operation	10th Passed	240 Hrs	3.5	2024
8.	Capital Goods	Fundamentals of HVAC	10th Passed	240 Hrs	3.5	2024
9.	Capital Goods	Introduction to Industry 4.0	10th Passed	240 Hrs	3.5	2024
10.	Capital Goods	Basics of Repair and Maintenance of Metal Cutting Machines	10th Passed	240 Hrs	3.5	2024

4. Micro-Credential Course on Artificial Intelligence (AI)


To equip ITI trainees with skills for future and familiarize with Artificial Intelligence, a micro-credential course titled "Introduction to Artificial Intelligence (AI)" has been integrated into the Employability Skills curriculum which includes basic understanding of AI, use of Generative AI tools and ethical considerations for responsible use of AI. The course duration is 7.5 hours, and updated Employability Skills books are available on the Bharat Skills Portal: <https://bharatskills.gov.in/>.

Sl. No.	Sector	Name of Micro-Credential Course	Entry Qualification	Duration	NSQF Level	Year of NSQF Approval
1.	IT & ITeS	Introduction to Artificial Intelligence (AI)	10th Passed	7.5 hrs	3.5	2024

Therefore, State Directorates/UTs/NSTIs are requested to introduce these NSQF-compliant courses in the ITIs/ NSTIs/ IToTs of your respective States/UTs and promote awareness among trainees.

RDSDEs are requested to collaborate with State Directorates/ UTs to facilitate this implementation effectively.

This issues with the approval of competent authority.


 (G. C. Ramamurthy)
 Director
 CD Section, DGT

Copy to (for information):

1. Sr. PPS to Secretary, MSDE
2. PSO to DG(T), DGT, MSDE
3. DDG (South Zone)
4. DDG (East Zone)
5. DDG, HQ, New Delhi
6. Director TC, DGT (HQ), New Delhi to include the above trades for affiliation of ITIs

7. Director IT & TT Cell DGT (HQ), New Delhi – For information, uploading in the portal and supportive assessment tools.
8. Director CFI, DGT (HQ), New Delhi – For implementation in NSTIs.
9. Director NIMI, Chennai – For information & for content development and question bank please.
10. Director CSTARI, Kolkata – For information and records.
11. Joint Director, Apprenticeship Section, MSDE – for information and records.

Annexure I

List of New Age / Future Skills Courses Under CTS

Sr.No.	Name of Trade	Duration	NSQF Level
1.	5G Network Technician	One year	4.5
2.	Additive Manufacturing (3D Printing) Technician	Two Year	3.5
3.	Aeronautical Structure and Equipment Fitter	Two Year	4
4.	Artificial Intelligence Programming assistant	One year	3.5
5.	CNC machining Technician	Two Year	4
6.	Computer Aided Manufacturing (CAM) Programmer	One year	3.5
7.	Cyber Security Assistant	One year	3.5
8.	Data Annotation Assistant	One year	3.5
9.	Drone Pilot (Junior)	Six Month	3
10.	Drone Technician	Six Months	3
11.	Engineering Design Technician	One year	3.5
12.	Fiber to Home Technician	Six months	3
13.	Geo Informatics Assistant	One year	3.5
14.	Green Hydrogen Production Technician	One Year	3.5
15.	Industrial Internet of Things (IIoT) Technician	Two Years	4.0
16.	Industrial Robotics and Digital Manufacturing	One year	3.5
17.	Information Technology	Two Year	4
18.	Internet of Things Technician (Smart Agriculture)	One year	3.5
19.	Internet of Things Technician (Smart City)	One year	3.5
20.	Internet of Things Technician (Smart Healthcare)	One year	3.5
21.	Manufacturing Process Control & Automation	One year	3.5
22.	Mechanic Electric Vehicle	Two Year	4

Sr.No.	Name of Trade	Duration	NSQF Level
23.	Multimedia, Animation & Special Effects	One year	3.5
24.	Semiconductor Technician	One Year	4.5
25.	Small Hydro Power Plant Technician	Two Year	4
26.	Smartphone Technician Cum App Tester	6 Months	3.5
27.	Software Testing Assistant	One year	4.5
28.	Solar Technician (Electrical)	One year	3.5
29.	Technician Mechatronics	Two Year	4
30.	Virtual Analysis and Designer - FEM (Finite Element Method)	Two Year	4
31.	Wind Plant Technician	Two Year	4
