

Organized by
ACTVET
Abu Dhabi Centre for
Technical and Vocational
Education and Training

بالتنظيم
EmiratesSkills
مهارات الإمارات
التقني والمهني

Skills Camp 2025

Summer Edition

Skills Camp 2025 Edition

Hand Book

Skills Camp

Where expertise meets its purpose!

The Skills Camp is a dynamic initiative designed to empower Emirati youth with essential technical and vocational skills for personal and professional growth. Through hands-on training in 19 key TVET areas, the camp promotes TVET to become the **first choice** for UAE citizens.

Tailored for all age groups — elementary level, juniors, high school and university seniors, and adults — the program offers a personalized and immersive learning experience.

Held from **30 June to 24 July** in **Abu Dhabi, Al Ain, and Al Dhafra**, this summer camp is a unique opportunity for young Emiratis to build practical skills and make the most of their break.



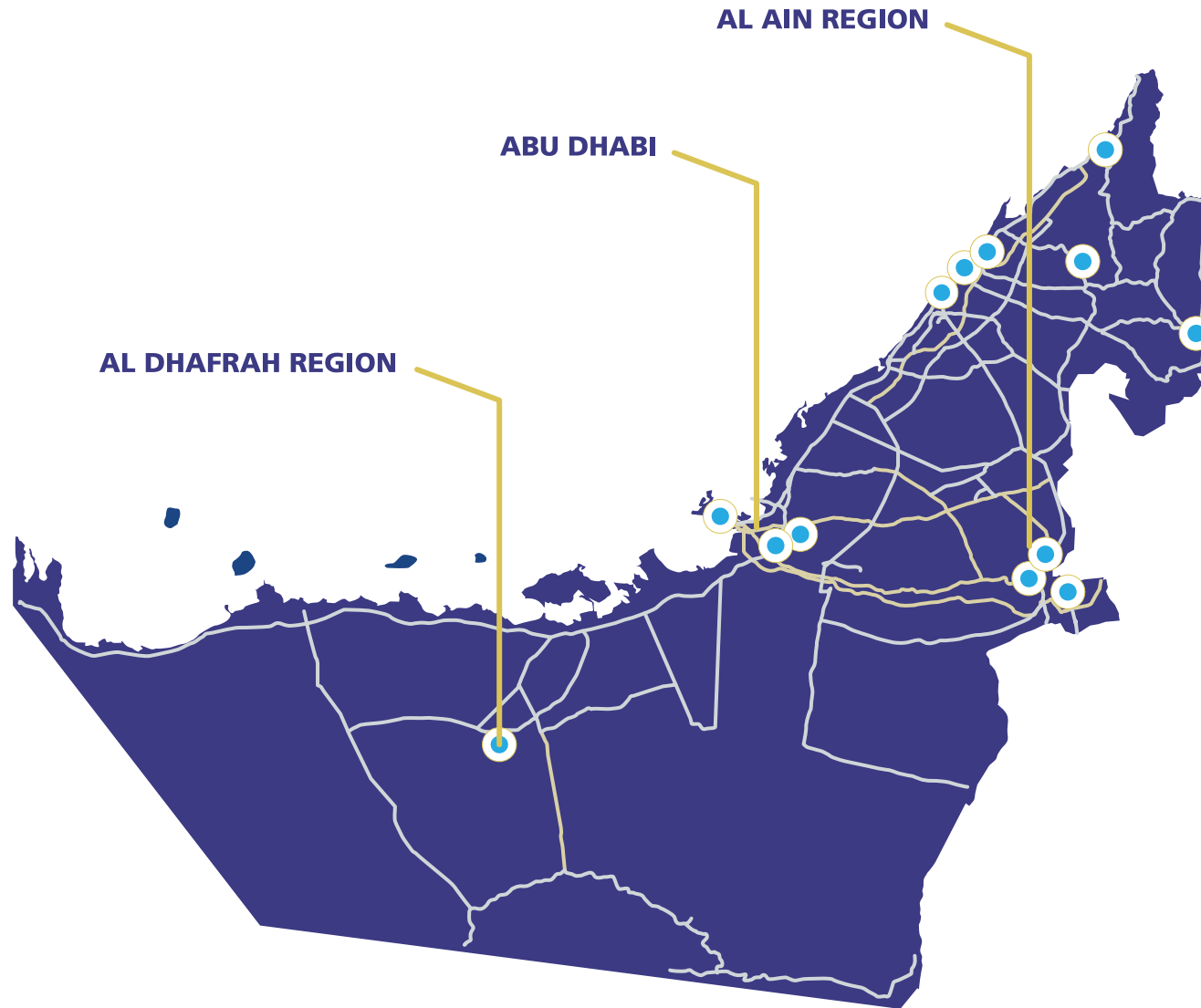
Participants will be gifted certificates and self-training kits upon course completion



Watch the video



Locations



Skills List



3D Designing & Printing



Automobile Technology



Autonomous Mobile Robotics



Car Painting



CNC Milling



CNC Turning



Smart Home Automation



Electronics



Graphic Design Technology



Health & Social Care



Industrial Control



Industrial Design Technology



IT Software Solutions for Business



Mechanical Engineering CAD



Painting & Decorating



Refrigeration & Air Conditionong



Renewable Energy



Website Technologies



Welding

Skills per Location

ABU DHABI

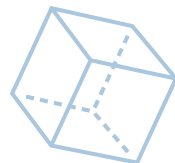
1. 3D Designing & Printing
2. Cars Maintenance & Electrical Vehicles
3. Autonomous Mobile Robotics
4. Car Painting
5. CNC Milling – Advanced Manufacturing Engineering
6. CNC Turning – Advanced Manufacturing Engineering
7. Smart Home Automation
8. Electronics Project Development
9. Graphic Design Technology
10. Health & Social Care
11. Industrial Automation
12. Industrial Design Technology
13. IT Software Solutions
14. Mechanical Engineering CAD
15. Painting & Decorating
16. Refrigeration & Air Conditioning
17. Renewable Energy
18. Website Development
19. Welding

Al Ain

1. 3D Designing & Printing
2. Cars Maintenance & Electrical Vehicles
3. Autonomous Mobile Robotics
4. CNC Milling – Advanced Manufacturing Engineering
5. CNC Turning – Advanced Manufacturing Engineering
6. Smart Home Automation
7. Electronics Project Development
8. Industrial Automation
9. Mechanical Engineering CAD

Al Dhafra

1. Autonomous Mobile Robotics
2. CNC Milling – Advanced Manufacturing Engineering
3. CNC Turning – Advanced Manufacturing Engineering
4. Smart Home Automation
5. Electronics Project Development
6. Graphic Design Technology
7. Health & Social Care
8. Industrial Automation
9. IT Software Solutions
10. Mechanical Engineering CAD



3D Printing & Design

Learn how to design and print 3D objects using FDM technology. This course covers basic modeling skills and guides you through turning digital designs into real-world items.

- Introduction to FDM technology
- Create simple 3D models
- Hands-on experience with 3D printers
- Ideal for learners curious about design and technology

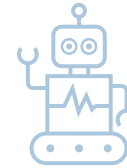




Automobile Technology

Learn to service both traditional and electric vehicles. This course covers engine checks, electrical diagnostics, and essential EV maintenance practices.

- Engine, Brakes, and suspension basics
- Electrical diagnostics
- EV servicing fundamentals
- Practical vehicle maintenance training

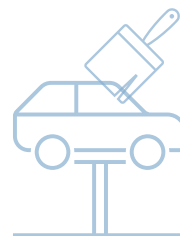


Autonomous Mobile Robotics

Explore mobile robotics with hands-on practice in robot movement, sensors, and motion planning. Build your own robots and prepare for real-world applications.

- Robot motion and sensor integration
- Motion planning techniques
- Hands-on robot building
- Real-world application review





Car Painting

Master the techniques of car painting, from surface preparation to professional finishes. Learn key skills to achieve high-quality results in vehicle painting.

- Surface preparation techniques
- Spray painting methods
- Practice with professional tools
- Final review for quality control

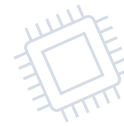




CNC Milling

Get hands-on experience with CNC milling machines, focusing on programming, tooling, and precision machining for manufacturing tasks.

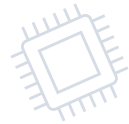
- CNC milling machine operation
- Basic G-code understanding
- Tooling and setup procedures
- Practical machining tasks



CNC Turning

Learn CNC turning techniques to create precise cylindrical parts, covering machine operation, programming, and tooling setup for efficient turning.

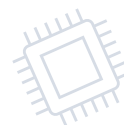
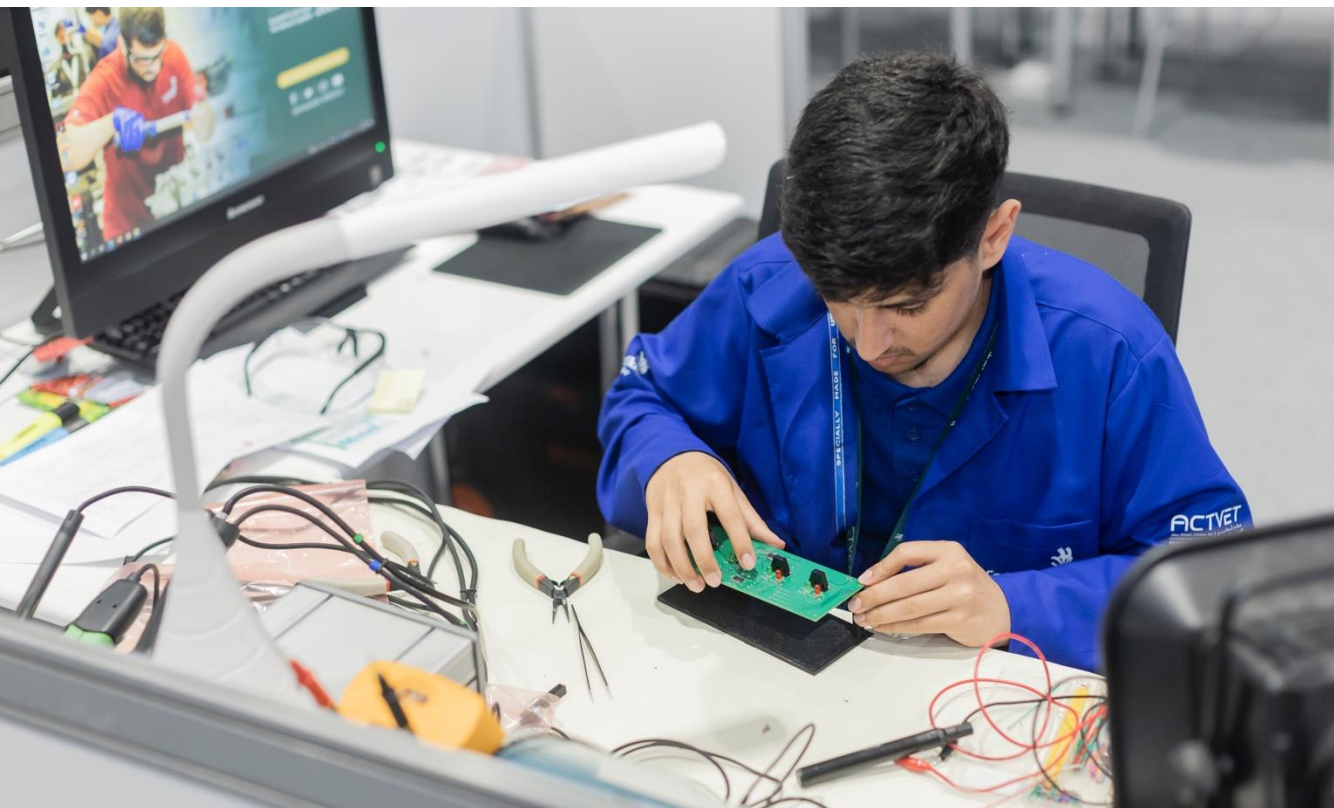
- CNC lathe operation
- Programming and tooling
- Precision turning techniques
- Hands-on experience



Smart Home Automation

Learn how to create smart home systems, from lighting and climate control to security and device integration. Gain practical skills to automate home environments.

- Lighting, climate, and security systems
- Device integration and automation
- Smart controller setup
- Real-world system builds



Electronics

Develop your skills in electronics by designing, prototyping, and assembling projects from start to finish. Bring ideas to life with hands-on practice.

- Circuit concepts and design
- Prototyping and testing
- Assembly of final products
- Hands-on electronics creation



Graphic Design Technology

Explore the basics of graphic design, including color theory, typography, and software tools. Learn to create effective and visually appealing designs.

- Design principles and color theory
- Typography basics
- Use of design software
- Project-based learning



Health & Social Care

Gain essential caregiving and communication skills to support health and well-being. Prepare for meaningful roles in health and social care.

- Practical caregiving techniques
- Communication and empathy
- Supporting health and wellbeing
- Entry into care-related careers



Industrial Automation

Learn the fundamentals of industrial automation, including PLC programming, wiring, and control systems. Build practical skills for automation projects.

- Electrical project setup
- PLC programming basics
- Wiring and commissioning
- Hands-on automation training





Industrial Design Technology

Turn creative ideas into tangible products by learning about 3D modeling, prototyping, and user-centered design. Develop your design skills with practical experience.

- Idea development process
- 3D modeling and CAD
- Prototype building
- User-focused design





IT Software Solutions

Master software solution planning, development, and deployment. Learn the tools needed to manage and build successful IT projects.

- Software planning and development
- Testing and deployment
- Team collaboration
- Practical coding projects



Mechanical Engineering CAD

Learn how to create and visualize mechanical parts using CAD software. Gain skills in modeling, technical drawing interpretation, and precision design.

- 2D and 3D modeling techniques
- Reading technical drawings
- CAD software applications
- Engineering design projects





Painting and Decorating

Develop your painting and decorating skills, including grid drawing, color theory, and texture application. Learn to create visually appealing artworks.

- Grid drawing and pattern design
- Color mixing and texture application
- Use of decorative stickers
- Practical art creation



Refrigeration & Air Conditioning

Learn the basics of refrigeration and air conditioning systems, including cooling principles, refrigerants, and energy-efficient solutions.

- Basics of cooling systems
- Refrigerant types and usage
- Energy efficiency concepts
- Practical hands-on training



Renewable Energy

Explore renewable energy technologies, including solar, wind, and hydropower. Learn how to design and implement sustainable energy systems.

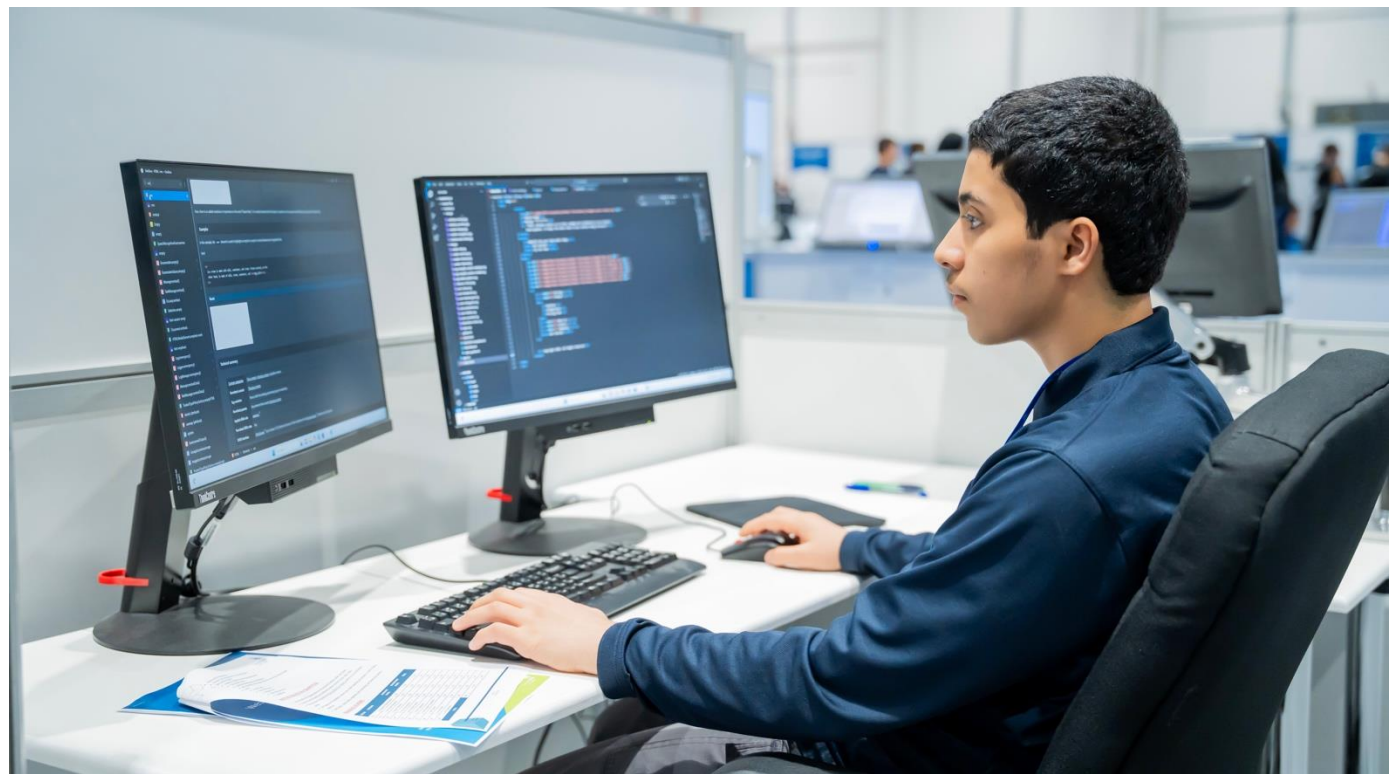
- Solar, wind, and hydropower systems
- Energy efficiency practices
- System installation basics
- Practical project implementation



Website Development

Learn web development, from structuring and styling websites to creating interactive, responsive designs. Gain hands-on experience building user-friendly websites.

- HTML, CSS, and JavaScript basics
- Responsive web design
- User-friendly interface development
- Build functional websites





Welding

Master welding techniques like SMAW and GMAW to join metals with precision and safety. Gain hands-on skills for various welding tasks.

- SMAW and GMAW processes
- Welding safety practices
- Hands-on metal joining
- Project-based welding tasks

Thank you