

DSP ICT Domain Training Guide for Desuups

De-suung Skilling Programme · Prepared by Tshering Cigay, ICT Domain Lead · © DSP 2023

About this guide

This guide helps every Desuup choose the right DSP ICT training for their interests and skills. Choose carefully, based on your aptitude and career goal, not at random.

DSP ICT trainings run on four levels. Start at the level that fits you today, then move up as your skills grow.

How to use it:

- 1 Read the level overview to see where you fit.
- 2 Use the decision guide to pick between coding and non-coding courses.
- 3 Check the career pathways for the route to your chosen profession.
- 4 Contact the Desuung Contact Centre if you need advice.

The four levels at a glance

Skill level and complexity rise from Level 0 to Level 3; only Level 0 is relevant to every Desuup.

Level	Course type	Duration	Frequency	Trainers	Best for
0. Foundation	ICT Foundation and Digital Literacy	1 month	2-3 times a year (also in RUB Colleges during summer and winter breaks)	DSP in-house trainers or college lecturers	All Desuups, especially those with no IT background
1. Beginner	Introduction to Coding	2 months	2-3 times a year	DSP in-house trained trainers	Those curious about coding or planning web, app or game development later
2. Basic skills	Entry-level ICT courses (non-coding and coding tracks)	3-6 months, depending on the course	Each course 1-3 times a year	Generally experts from abroad	Those with some IT knowledge or who completed Introduction to Coding
3. Up-skilling	Specialized courses	Not specified	Each course 1-3 times a year	Generally experts from abroad	Those who completed at least one relevant Level 2 course

Courses are subject to change, and new courses may be added.

Level-by-level details

Level 0: ICT Foundation and Digital Literacy

This one-month course gives every Desuup the digital basics needed in a digital era.

- **You will learn:** Microsoft Word, Excel and PowerPoint, plus internet search, online safety and social media use.
- **Who should take it:** All Desuups with no IT background who want basic IT skills and digital literacy.

Level 1: Introduction to Coding

This two-month course teaches how coding works and how to write simple computer programs, using the `bsd.education` platform.

- **It also tests your fit:** The course shows whether you have an aptitude for programming. If you do not enjoy coding, choose digital marketing, graphic design, animation or CAD for your next level.
- **Who should take it:** Those interested in coding, or planning web, app or game development courses later.

Level 2: Basic ICT skills-based courses

These 3-6 month courses give you the basic skills for entry-level jobs or self-employment in the ICT industry. To progress further, keep taking courses and keep learning through practice and online study. Choose the track that matches your passion and aptitude:

Track	Courses	Suits
Without coding	Digital marketing, graphic design, animation, video editing, computer-aided design (CAD)	Those who prefer design and creative work
With some coding	Web development, full stack development, mobile app development, Python programming and data analytics, networking, C# programming, cyber-security, robotics, industrial automation	Those good at maths and logic

Level 3: Up-skilling

These courses give more specialized skills and are recommended after at least one relevant Level 2 course. Examples:

- Game development using C#, by an expert trainer from abroad
- Cisco Certified Network Associate (CCNA), at RIM, Bhutan
- 3D animation, currently provided by Toonz Media Group, India
- Online freelancing, currently provided by Learnio, Denmark
- UI/UX design, mobile app development and progressive web app development, each by an expert trainer
- Cloud computing, DevOps and similar topics, by an expert trainer

Which path suits you?

Start with Level 0 if you are new to IT, and take Introduction to Coding if you are unsure whether you enjoy programming.

If this describes you	Your next step
No IT background, or you want basic digital skills	Level 0: ICT Foundation and Digital Literacy
Curious about coding, or unsure if you have the aptitude	Level 1: Introduction to Coding
Enjoyed coding and are good at maths and logic	Level 2, coding track: web, full stack or mobile app development, Python and data analytics, networking, C#, cyber-security, robotics, industrial automation
Did not enjoy coding, but like design and creative work	Level 2, non-coding track: digital marketing, graphic design, animation, video editing, CAD
Completed a relevant Level 2 course	Level 3: specialized up-skilling course

If this describes you	Your next step
Finished the recommended training and want to work for yourself	A freelancing or business incubation training from DSP

Career pathways

DSP ICT courses can lead to nine technician or specialist roles. Whether you become an entry-level technician or a specialist depends on the depth of your skills, and you can grow into a specialist by continuing to learn and practise with passion and determination beyond the training provided.

Profession	Recommended pathway	Aptitude needed
Digital marketing technician/specialist	ICT Foundation → Introduction to Coding → Digital Marketing → Freelancing training	Design and communication skills
Graphic designer/ animator/specialist	ICT Foundation → Graphic Design/Animation → Freelancing training	Design and artistic skills
Website developer	ICT Foundation → Introduction to Coding → Website Development → Freelancing training	Design and coding skills
IT helpdesk support/networking technician/specialist	ICT Foundation → Introduction to Coding → Networking course (CCNA) → Advanced networking course	Logical reasoning skills
Data analyst/scientist	ICT Foundation → Introduction to Coding → Python programming for data analysis → Advanced data science course (if possible)	Logic and coding skills, preferably good in maths
Cloud computing technician/specialist	ICT Foundation → Introduction to Coding → Networking or intermediate programming → Cloud computing → Freelancing training	Logic and coding skills, preferably good in maths
Cybersecurity technician/specialist	ICT Foundation → Introduction to Coding → Networking or intermediate programming → Cybersecurity technician course → Advanced cybersecurity course	Logic and coding skills, preferably good in maths
Java full stack developer	ICT Foundation → Introduction to Coding → Intermediate programming or website development → Java full stack development	Logic and coding skills, preferably good in maths
Robotics/industrial automation technician/specialist	ICT Foundation → Introduction to Coding → Robotics or Industrial Automation course	Logic and engineering skills

To improve your chances of self-employment after completing the recommended training for a profession, join a DSP freelancing or business incubation training.

Results so far

As of 11 April 2023, DSP had trained 2,024 Desuups in the ICT domain, and 94.3% of survey respondents said they learnt useful skills.

Survey answer to "How did you find the DSP training?"	Share of respondents
Learnt useful skills that will help find a job or start a business	62%
Learnt useful skills for life, though they may not help earn a livelihood	32.3%
Tried their best but could not learn much	Remainder of respondents (chart slice unlabeled)
Had no interest and learnt nothing	None shown

The survey slide reports 351 respondents in its headline and 347 responses in the chart.

Next steps and contact

Call the Desuung Contact Centre on **1411** or email **drcigay@desuung.org.bt** for enquiries or advice.

- Pick your starting level using the decision guide above.
- Choose a profession and follow its recommended pathway step by step.
- Keep practising and learning beyond the training, since that is what turns an entry-level technician into a specialist.
- Join a freelancing or business incubation training if you plan to be self-employed.