



Maldives National Skills Development Authority



National Competency Standard for School Laboratory Techniques

Standard Code: SOC27S18V1

**Qualification Name: National Certificate III in School Laboratory Techniques
Qualification Code: SOC27SQ1L318**

Technical Panel members		
Name	Designation	Company
Aishath Lubna	Senior Laboratory Assistant	Jamaaluddin School
Aishath Suha	Laboratory Assistant	Aminiyya School
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Developer		
TVET Authority	-	Ministry of Education

PREFACE

Technical and Vocational Education and Training (TVET) Authority was established with the vision to develop a TVET system in the Maldives that is demand driven, accessible, beneficiary financed and quality assured, to meet the needs of society for stability and economic growth, the needs of Enterprise for a skilled and reliable workforce, the need of young people for decent jobs and the needs of workers for continuous mastery of new technology.

TVET system in the Maldives flourished with the Employment Skills Training Project (ESTP) funded by ADB with the objective of increasing the number of Maldivians, actively participating in the labor force, employed and self-employed. The Project supported expansion of demand driven employment-oriented skills training in priority occupations and to improve the capacity to develop and deliver Competency Based Skill Training (CBST). The project supported delivery of CBST programs to satisfy employer demand-driven needs. The National Competency Standards (NCS) provide the base for this training. Currently CBST is offered for five key sectors in the Maldives: Tourism, Fisheries and Agriculture, Transport, Construction and the Social sectors. These sectors are included as priority sectors that play a vital role in the continued economic growth of the country.

The NCS are developed in consultation with Employment Sector Councils representing employers. They are designed using a consensus format endorsed by the Maldives Qualifications Authority (MQA) to maintain uniformity of approach and the consistency of content amongst occupations. This single format also simplifies benchmarking the NCS against relevant regional and international standards. NCS specify the standards of performance of a competent worker and the various contexts in which the work may take place. NCS also describes the knowledge, skills and attitudes required in a particular occupation. They provide explicit advice to assessors and employers regarding the knowledge, skills and attitudes to be demonstrated by the candidates seeking formal recognition for the competency acquired following training or through work experience. By sharing this information, all participants in the training process have the same understanding of the training required and the standard to be reached for certification. Certification also becomes portable and can be recognized by other employers and in other countries with similar standards. NCS are the foundation for the implementation of the TVET system in Maldives. They ensure that all skills, regardless of where or how they were developed can be assessed and recognized. They also form the foundation for certifying skills in the Maldives National Qualification Framework (MNQF).

KEY FOR CODING

Coding Competency Standards and Related Materials

DESCRIPTION	REPRESENTED BY
Industry Sector as per ESC (Three letters)	Construction Sector (CON) Fisheries and Agriculture Sector (FNA) Transport sector (TRN) Tourism Sector (TOU) Social Sector (SOC) Foundation (FOU)
Competency Standard	S
Occupation with in an industry Sector	Two digits 01-99
Unit	U
Common Competency	1
Core Competency	2
Optional/ Elective Competency	3
Assessment Resources Materials	A
Learning Resources Materials	L
Curricula	C
Qualification	Q1, Q2 etc
MNQF level of Qualification	L1, L2 etc
Version Number	V1, V2 etc
Year of endorsement of standard, qualification	By two digits Example- 07

1. Endorsement Application for Qualification 01**2. NATIONAL CERTIFICATE III IN SCHOOL LABORATORY ASSISTANT****3. Qualification code: SOC27Q1L318****Total Number of Credits: 40****4. Purpose of the qualification**

The holders of this qualification are expected to work as a School Laboratory Assistant and will be working under the supervision of a School Laboratory Technician.

5. Regulations for the qualification

National Certificate III in School Laboratory Assistant will be awarded to those who are competent in units

1+2+3+4+5+6+7+8+9+10

6. Schedule of Units

Unit Title	Unit Title	Code
1.	Communication and Interpersonal Skills	SOC ₂₇ S ₁ U ₀₁ V ₁
2.	Relevant Scientific Concepts and Legislative Requirements	SOC ₂₇ S ₁ U ₀₂ V ₁
3.	Follow Established Work plan	SOC ₂₇ S ₁ U ₀₃ V ₁
4.	Maintain Laboratory Fit for Purpose	SOC ₂₇ S ₁ U ₀₄ V ₁
5.	Work Safely in Accordance with Defined Policies and Procedures	SOC ₂₇ S ₁ U ₀₅ V ₁
6.	Apply Quality Systems and Continuous Improvement Process	SOC ₂₇ S ₁ U ₀₆ V ₁
7.	Work Efficiently as Part of Team	SOC ₂₇ S ₁ U ₀₇ V ₁
8.	Perform Instrumental Test/Procedures	SOC ₂₇ S ₁ U ₀₈ V ₁
9.	Perform non-Instrumental Test/Procedures	SOC ₂₇ S ₁ U ₀₉ V ₁
10.	Perform Standardize and Use Solution	SOC ₂₇ S ₁ U ₁₀ V ₁

7. Accreditation requirements

The training provider should have a Laboratory area or similar training facility to provide the trainees the hands-on experience related to this qualification

8. Recommended sequencing of units

As appearing under the section 06

RECEAVED

1. Endorsement Application for Qualification 02**2. NATIONAL CERTIFICATE IV IN SCHOOL LABORATORY TECHNICIAN****3. Qualification code:**

SOC27SQ2L418

Total Number of Credits :160**4. Purpose of the qualification**

The holders of the level four qualifications are expected to possess all the relevant knowledge and skills to work as a laboratory technician in school laboratories. Referred technician can assist the teachers in science experiments, maintain and keep regular inventory of science laboratory, prepare solution and assist students and teacher during science fairs and science related excursions.

5. Regulations for the qualification

National Certificate IV in the School Laboratory Technician Qualification will be awarded to those who are competent in unit

1+2+3+4+5+6+7+8+9+10+11+12+15+17+18+19

6. Schedule of Units

Unit No	Unit Title	Code
1	Communication and Interpersonal Skills	SOC ₂₇ S ₁ U ₀₁ V ₁
2	Relevant Scientific Concepts and Legislative Requirements	SOC ₂₇ S ₁ U ₀₂ V ₁
3	Follow Established Work plan	SOC ₂₇ S ₁ U ₀₃ V ₁
4	Maintain Laboratory Fit for Purpose	SOC ₂₇ S ₁ U ₀₄ V ₁
5	Work Safely in Accordance with Defined Policies and Procedures	SOC ₂₇ S ₁ U ₀₅ V ₁
6	Apply Quality Systems and Continuous Improvement Process	SOC ₂₇ S ₁ U ₀₆ V ₁
7	Work Efficiently as Part of Team	SOC ₂₇ S ₁ U ₀₇ V ₁
8	Perform Instrumental Test/Procedures	SOC ₂₇ S ₁ U ₀₈ V ₁
9	Perform non-Instrumental Test/Procedures	SOC ₂₇ S ₁ U ₀₉ V ₁
10	Perform Standardize and Use Solution	SOC ₂₇ S ₁ U ₁₀ V ₁
11	Biological Experiment	SOC ₂₇ S ₁ U ₁₁ V ₁
12	Physics and Engineering Rely on Quantitative Experiments	SOC ₂₇ S ₁ U ₁₂ V ₁
13	Perform Microbiological Tests	SOC ₂₇ S ₁ U ₁₃ V ₁
14	Lab Safety Rules and Guidelines	SOC ₂₇ S ₁ U ₁₄ V ₁
15	Laboratory Security	SOC ₂₇ S ₁ U ₁₅ V ₁

16	Laboratory Layout and Furnishing	SOC ₂₇ S ₁ U ₁₆ V ₁
17	Laboratory Emergency Response Procedures	SOC ₂₇ S ₁ U ₁₇ V ₁
18	Calibration and maintenance	SOC ₂₇ S ₁ U ₁₈ V ₁
19	Troubleshooting, service repair and retiring	SOC ₂₇ S ₁ U ₁₉ V ₁

7. Accreditation requirements	The training provider should place trainees in relevant laboratories or similar training facilities to provide the trainees the hands-on experience exposure related to this qualification. (if there are any workshops regarding this we could take them.)
8. Recommended sequencing of units	As appearing under the section 06

UNITS DETAILS

Unit No.	Unit Title	Code	Level	No of credits
1.	Communication and Interpersonal Skills	SOC ₂₇ S ₁ U ₀₁ V ₁	3	3
2.	Relevant Scientific Concepts and Legislative Requirements	SOC ₂₇ S ₁ U ₀₂ V ₁	3	6
3.	Follow Established Work Plan	SOC ₂₇ S ₁ U ₀₃ V ₁	3	3
4.	Maintain laboratory fit for purpose	SOC ₂₇ S ₁ U ₀₄ V ₁	3	4
5.	Work Safely in Accordance with Defined Policies and Procedures	SOC ₂₇ S ₁ U ₀₅ V ₁	3	3
6.	Apply Quality Systems and Continuous Improvement Process	SOC ₂₇ S ₁ U ₀₆ V ₁	3	3
7.	Work Efficiently as Part of Team	SOC ₂₇ S ₁ U ₀₇ V ₁	3	3
8.	Perform Instrumental Test/Procedures	SOC ₂₇ S ₁ U ₀₈ V ₁	3	6
9.	Perform non-Instrumental Test/Procedures	SOC ₂₇ S ₂ U ₀₉ V ₁	3	6
10.	Perform Standardize and Use Solution	SOC ₂₇ S ₂ U ₁₀ V ₁	3	3
11.	Biological Experiment	SOC ₂₇ S ₂ U ₁₁ V ₁	4	15
12.	Physics and Engineering Rely on Quantitative Experiments	SOC ₂₇ S ₂ U ₁₂ V ₁	4	15
13.	Perform Microbiological Tests	SOC ₂₇ S ₂ U ₁₃ V ₁	4	15
14.	Lab Safety Rules and Guidelines	SOC ₂₇ S ₂ U ₁₄ V ₁	4	15
15.	Laboratory Security	SOC ₂₇ S ₂ U ₁₅ V ₁	4	10
16.	Laboratory Layout and Furnishing	SOC ₂₇ S ₂ U ₁₆ V ₁	4	10
17.	Laboratory Emergency Response Procedures	SOC ₂₇ S ₂ U ₁₇ V ₁	4	10
18.	Calibration and maintenance	SOC ₂₇ S ₂ U ₁₈ V ₁	4	15
19.	Troubleshooting, service repair and retiring	SOC ₂₇ S ₂ U ₁₉ V ₁	4	15

Packaging of National Qualifications:

National Certificate III in School Laboratory Assistant will be awarded to those who are competent in units 1+2+3+4+5+6+7+8+9+10

Qualification Code: SOC27SQ1L318

National Certificate IV in School Laboratory Technician will be awarded to those who are competent in units 1+2+3+4+5+6+7+8+9+10+11+12+15+17+18+19

Qualification Code: SOC27SQ2L418

Competency Standard for

School Laboratory Technician

Unit No	Unit Title
1	Communication and Interpersonal Skills
2	Relevant Scientific Concepts and Legislative Requirements
3	Follow Established Work Plan
4	Maintain laboratory fit for purpose
5	Work Safely in Accordance with Defined Policies and Procedures
6	Apply Quality Systems and Continuous Improvement Process
7	Work Efficiently as Part of Team
8	Perform Instrumental Test/Procedures
9	Perform non-Instrumental Test/Procedures
10	Perform Standardize and Use Solution
11	Biological Experiment
12	Physics and Engineering Rely on Quantitative Experiments
13	Perform Microbiological Tests
14	Lab Safety Rules and Guidelines
15	Laboratory Security
16	Laboratory Layout and Furnishing
17	Laboratory Emergency Response Procedures
18	Calibration and maintenance
19	Troubleshooting, service repair and retiring