



# COMPETENCY STANDARD

FOR

## Cutting Machine Operations

(Leather and Leather Goods Sector)

Level: 02

Competency Standard Code: I03S002L2V1

National Skills Development Authority  
Prime Minister's Office, Bangladesh

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# Introduction

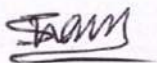
The National Skills Development Authority (NSDA) aims to enhance an individual's employability by certifying competiveness with skills. NSDA works to expand the skilling capacity of identified public and private training providers qualitatively and quantitatively. It also aims to establish and operationalize a responsive skill ecosystem and delivery mechanism through a combination of well-defined set of mechanisms and necessary technical supports.

Key priority economic growth sectors identified by the government have been targeted by NSDA to improve current job skills along with existing workforce to ensure required skills to industry standards. Training providers are encouraged and supported to work with industry to address identified skills and knowledge to enable industry growth and increased employment through the provision of market responsive inclusive skills training programmes. "**Cutting Machine Operations**" is selected as one of the priority occupations of **Leather and Leather Goods** Sector. This standard is developed to adopt a demand driven approach to training with effective inputs from Industry Skills Councils (ISC's), employer associations and employers.

Generally a competency standard informs curriculum, learning materials, assessment and certification of students enrolled in TVET. Students who successfully pass the assessment will receive a qualification in the National Technical and Vocational Qualification Framework (NTVQF) and will be listed on the NSDA's online portal.

This competency standard is developed to improve skills and knowledge in accordance with the job roles, duties and tasks of the occupation and ensure that the required skills and knowledge are aligned to industry requirements. A series of stakeholder consultations, workshops were held to develop this document.

The document also details the format, sequencing, wording and layout of the Competency Standard for an occupation which is comprised of Units of Competence and its corresponding Elements.



## Overview

A **competency standard** is a written specification of the knowledge, skills and attitudes required for the performance of an occupation, trade or job corresponding to the industry standard of performance required in the workplace.

The purpose of a competency standards is to:

- provide a consistent and reliable set of components for training, recognising and assessing people's skills, and may also have optional support materials
- enable industry recognised qualifications to be awarded through direct assessment of workplace competencies
- encourage the development and delivery of flexible training which suits individual and industry requirements
- encourage learning and assessment in a work-related environment which leads to verifiable workplace outcomes

Competency standards are developed by a working group comprised of representative from NSDA, Key Institutions, ISC, and industry experts to identify the competencies required of an occupation in **Leather and Leather Goods** sector.

Competency standards describe the skills, knowledge and attitude needed to perform effectively in the workplace. CS acknowledge that people can achieve technical and vocational competency in many ways by emphasising what the learner can do, not how or where they learned to do it.

With competency standards, training and assessment may be conducted at the workplace or at training institute or any combination of these.

Competency standards consist of a number of units of competency. A unit of competency describes a distinct work activity that would normally be undertaken by one person in accordance with industry standards.

Units of competency are documented in a standard format that comprises of:

- unit title
- nominal duration
- unit code
- unit descriptor
- elements and performance criteria
- variables and range statement
- curricular content guide
- assessment evidence guide

Together, all the parts of a unit of competency:

- describe a work activity
- guide the assessor to determine whether the candidate is competent or not yet competent

The ensuing sections of this document comprise of a description of the relevant occupation, trade or job with all the key components of a unit of competency, including:

- a chart with an overview of all Units of Competency for the relevant occupation, trade or job including the Unit Codes and the Unit of Competency titles and corresponding Elements
- the Competency Standard that includes the Unit of Competency, Unit Descriptor, Elements and Performance Criteria, Range of Variables, Curricular Content Guide and Assessment Evidence Guide

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## NTVQF with Job Classifications

NTVQF LEVELS	EDUCATION SECTORS			Job Classification
	Pre-Vocation Education	Vocational Education	Technical Education	
NTVQF 6			Diploma in engineering or equivalent	Middle Level Manager /Sub Assistant Engr. etc.
NTVQF 5		National Skill Certificate 5 (NSC 5)		Highly Skilled Worker / Supervisor
NTVQF 4		National Skill Certificate 4 (NSC 4)		Skilled Worker
NTVQF 3		National Skill Certificate 3 (NSC 3)		Semi-Skilled Worker
NTVQF 2		National Skill Certificate 2 (NSC 2)		Basic Skilled Worker
NTVQF 1		National Skill Certificate 1 (NSC 1)		Basic Worker
Pre-Voc 2	National Pre-Vocation Certificate 2 (NPVC 2)			Pre-Vocation Trainee
Pre-Voc 1	National Pre-Vocation Certificate 1 (NPVC 1)			Pre-Vocation Trainee

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# NTVQF Level Descriptors

NTVQF Level	Knowledge	Skill	Responsibility	Job Class.
6	<ul style="list-style-type: none"> <li>Comprehensive actual and theoretical knowledge within a specific study area with an awareness of the limits of that knowledge</li> </ul>	<ul style="list-style-type: none"> <li>Specialised and restricted range of cognitive and practical skills required to provide leadership in the development of creative solutions to defined problems</li> </ul>	<ul style="list-style-type: none"> <li>Manage a team or teams in workplace activities where there is unpredictable change</li> <li>Identify and design learning programs to develop performance of team members</li> </ul>	Supervisor / Middle Level Manager / Sub Assistant Engr. etc.
5	<ul style="list-style-type: none"> <li>Very broad knowledge of the underlying, concepts, principles, and processes in a specific study area</li> </ul>	<ul style="list-style-type: none"> <li>Very broad range of cognitive and practical skills required to generate solutions to specific problems in one or more study areas.</li> </ul>	<ul style="list-style-type: none"> <li>Take overall responsibility for completion of tasks in work or study</li> <li>Apply past experiences in solving similar problems</li> </ul>	Highly Skilled Worker / Supervisor
4	<ul style="list-style-type: none"> <li>Broad knowledge of the underlying, concepts, principles, and processes in a specific study area</li> </ul>	<ul style="list-style-type: none"> <li>Range of cognitive and practical skills required to accomplish tasks and solve problems by selecting and applying the full range of methods, tools, materials and information</li> </ul>	<ul style="list-style-type: none"> <li>Take responsibility, within reason, for completion of tasks in work or study</li> <li>Apply past experiences in solving similar problems</li> </ul>	Skilled Worker
3	<ul style="list-style-type: none"> <li>Moderately broad knowledge in a specific study area.</li> </ul>	<ul style="list-style-type: none"> <li>Basic cognitive and practical skills required to use relevant information in order to carry out tasks and to solve routine problems using simple rules and tools</li> </ul>	<ul style="list-style-type: none"> <li>Work or study under supervision with some autonomy</li> </ul>	Semi-Skilled Worker
2	<ul style="list-style-type: none"> <li>Basic underpinning knowledge in a specific study area.</li> </ul>	<ul style="list-style-type: none"> <li>Basic skills required to carry out simple tasks</li> </ul>	<ul style="list-style-type: none"> <li>Work or study under indirect supervision in a structured context</li> </ul>	Basic Skilled Worker
1	<ul style="list-style-type: none"> <li>Elementary understanding of the underpinning knowledge in a specific study area.</li> </ul>	<ul style="list-style-type: none"> <li>Limited range of skills required to carry out simple tasks</li> </ul>	<ul style="list-style-type: none"> <li>Work or study under direct supervision in a structured context</li> </ul>	Basic Worker
Pre-Voc 2	<ul style="list-style-type: none"> <li>Limited general knowledge</li> </ul>	<ul style="list-style-type: none"> <li>Very limited range of skills and use of tools required to carry out simple tasks</li> </ul>	<ul style="list-style-type: none"> <li>Work or study under direct supervision in a well-defined, structured context.</li> </ul>	Pre-Vocation Trainee
Pre-Voc 1	<ul style="list-style-type: none"> <li>Extremely limited general knowledge</li> </ul>	<ul style="list-style-type: none"> <li>Minimal range of skills required to carry out simple tasks</li> </ul>	<ul style="list-style-type: none"> <li>Simple work or study exercises, under direct supervision in a clear, well defined structured context</li> </ul>	Pre-Vocation Trainee

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## **List of Abbreviations**

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### **General**

NSDA - National Skills Development Authority

CS – Competency Standard

ILO – International Labor Organization

ISC – Industry Skills Council

NPVC – National Pre-Vocation Certificate

NTVQF – National Technical and Vocational Qualifications Framework

SCVC – Standards and Curriculum Validation Committee

TVET – Technical Vocational Education and Training

UoC – Unit of Competency

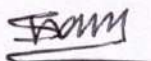
### **Occupation Specific Abbreviations**

MSDS – Material Safety Data Sheet

OSH – Occupational Safety and Health




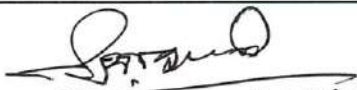
PPE – Personal Protective Equipment

SOP – Standard Operating Procedures



## Approval of Competency Standard

Members of the Approval Committee:

Member	Signature
<b>Md. Faruque Hossain</b> Executive Chairman (Secretary) National Skills Development Authority (NSDA)	
<b>Pijush Kanti Nath</b> Additional Secretary Member (Admin & Finance) National Skills Development Authority (NSDA)	 12.01.20
<b>Mohammad Rezaul Karim</b> Additional Secretary Member (Skills Standard & Certification) National Skills Development Authority (NSDA)	 12.01.2020
<b>Md. Abdur Razzaque</b> Joint Secretary Member (Planning & Research) National Skills Development Authority (NSDA)	 12.01.2020



**Md. Faruque Hossain**  
Executive Chairman (Secretary)  
National Skills Development Authority (NSDA)  
Date: 12.01.2020

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## Competency Standards for National Skill Certificate - II in Cutting Machine Operations in Leather and Leather Goods Sector.

### Course Structure

SL	Unit Code and Title		UoC Level	Nominal Duration (Hours)
<b>The Generic Competencies</b>				<b>65</b>
1.	GCU01L1V1	Perform Computations Using Basic Mathematical Concepts	1	20
2.	GCU03L1V1	Operate in a Team Environment	1	30
3.	GCU05L3V1	Carryout Workplace Interaction in English	2	15
<b>The Sector Specific Competencies</b>				<b>50</b>
1.	SSU01I03L1V1	Apply Occupational Health and Safety (OSH) in the Workplace	2	20
2.	SSU02I03L1V1	Work in the Leather, Footwear and Leather Goods Industries	2	30
<b>The Occupation Specific Competencies</b>				<b>245</b>
1.	OSU01I03L2V1	Interpret Cutting Machine Operations	2	35
2.	OSU02I03L2V1	Interpret Quality Standards of Leather and leather product components	2	40
3.	OSU03I03L2V1	Perform Leather Cutting by Machine	2	90
4.	OSU04I03L2V1	Perform Cutting of Synthetics, Fabrics and Sheet Materials by Machine	2	80
<b>Total Nominal Learning Hours</b>				<b>360</b>

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# Units & Elements at a Glance

## The Generic Competencies

Unit Code	Unit of Competency	Elements of Competency	Duration (Hours)
GCU01L1V1	Perform Computations Using Basic Mathematical Concepts	<ol style="list-style-type: none"> <li>1. Identify calculation requirements in the workplace</li> <li>2. Select appropriate mathematical methods/concepts for the calculation</li> <li>3. Use tools and instruments to perform calculations</li> </ol>	30
GCU03L1V1	Operate in a Team Environment	<ol style="list-style-type: none"> <li>1. Identify team goals and work processes</li> <li>2. Identify own roles and responsibilities within team</li> <li>3. Communicate and cooperate with team members</li> <li>4. Practice problem solving within the team</li> </ol>	20
GCU05L3V1	Carryout Workplace Interaction in English	<ol style="list-style-type: none"> <li>1. Interpret workplace communication and etiquette</li> <li>2. Read and understand workplace documents</li> <li>3. Participate in workplace meetings and discussions</li> <li>4. Practice professional ethics at workplace</li> </ol>	15
<b>Total Hours</b>			<b>65</b>

## The Sector Specific Competencies

Code	Unit of competency	Elements of competency	Duration (hours)
SSU03I03L2V1	Apply Occupational Health and Safety (OSH) in the Workplace	<ol style="list-style-type: none"> <li>1. Identify OSH policies and procedures</li> <li>2. Apply personal health and safety practices</li> <li>3. Report hazards and risks</li> <li>4. Response to emergency situations</li> </ol>	20
SSU01I03L2V1	Work in the Leather, Footwear and Leather Goods Industries	<ol style="list-style-type: none"> <li>1. Identify positions, job roles and responsibilities</li> <li>2. Identify materials used in leather, footwear and leather goods industries</li> <li>3. Explain the workflow of making footwear and leather goods</li> </ol>	30
<b>Total Hours</b>			<b>50</b>

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## The Occupation Specific Competencies

Code	Unit of competency	Elements of competency	Duration (hours)
OSU01I03L2V1	Interpret Cutting Operations	<ol style="list-style-type: none"> <li>1. Interpret basic concepts of cutting operations</li> <li>2. Identify materials used for cutting operation</li> <li>3. Check materials received from concern department</li> <li>4. Identify machines, tools and equipment</li> </ol>	35
OSU02I03L2V1	Interpret Quality Standards of Leather and leather product components	<ol style="list-style-type: none"> <li>1. Interpret quality standard of leather</li> <li>2. Interpret quality requirements of components of shoes</li> </ol>	40
OSU03I03L2V1	Perform Leather Cutting by Machine	<ol style="list-style-type: none"> <li>1. Follow OSH practices</li> <li>2. Interpret laws of cutting</li> <li>3. Adjust and setup machine</li> <li>4. Perform cutting of leather by machine</li> <li>5. Maintain workplace cleanliness</li> </ol>	90
OSU04I03L2V1	Perform Cutting of Synthetics, Fabrics and Sheet Materials by Machine	<ol style="list-style-type: none"> <li>1. Follow Occupational Health and Safety (OSH) practices</li> <li>2. Check work bundles received from concern department</li> <li>3. Perform cutting of synthetics, fabrics and sheet materials</li> <li>4. Maintain workplace cleanliness</li> </ol>	80
<b>Total Hours</b>			<b>245</b>

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## The Generic Competencies

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**National Technical and Vocational Qualifications Framework for Bangladesh**  
**Unit of Competency**

<b>Unit Code and Title</b>	<b>GCU18L1V1: Perform Computations Using Basic Mathematical Concepts</b>	
<b>Unit Descriptor</b>	This unit of competency covers the knowledge, skills and attitudes required to perform computations using basic mathematical concepts at workplace. It specifically includes identifying calculation requirements in the workplace, selecting appropriate mathematical methods / concepts for calculation and using tools and instruments to perform calculations.	
<b>Nominal Hours</b>	<b>30 Hours</b>	
<b>Elements of Competency</b>	<b>Performance Criteria</b> <b><u>Bold &amp; underlined</u></b> terms are elaborated in the Range of Variables	
1. Identify calculation requirements in the workplace	1.1 <b><u>Calculation requirements</u></b> are identified from <b><u>workplace information</u></b> 1.2 Mathematical problems are constructed from workplace information	
2. Select appropriate mathematical methods/ concepts for the calculation	2.1 <b><u>Appropriate method</u></b> is selected to carry out calculation requirements 2.2 Constructed mathematical problems are solved with appropriate method	
3. Use tools and instruments to perform calculations	3.1 <b><u>Tools and instrument</u></b> required for computation are identified 3.2 Calculation is performed using appropriate tools and instruments accurately	
<b>Range of Variables</b>		
<b>Variable</b>	<b>Range</b> (may include but not limited to):	

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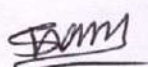
1. Calculation requirements	<ul style="list-style-type: none"> <li>1.1 Unit/ Persons</li> <li>1.2 Area</li> <li>1.3 Height/ Length/ Breadth/ Thickness</li> <li>1.4 Diameter</li> <li>1.5 Weight/ Mass</li> <li>1.6 Capacity</li> <li>1.7 Time</li> <li>1.8 Temperature</li> <li>1.9 Material usage</li> <li>1.10 Speed</li> <li>1.11 Data usage</li> <li>1.12 Costing</li> <li>1.13 Density</li> </ul>
2. Workplace information	<ul style="list-style-type: none"> <li>2.1 Workplace/Floor Plan</li> <li>2.2 Design</li> <li>2.3 Working chart/drawing</li> <li>2.4 Verbal instructions</li> <li>2.5 Job order</li> </ul>
3. Appropriate method	<ul style="list-style-type: none"> <li>3.1 Addition</li> <li>3.2 Subtraction</li> <li>3.3 Division</li> <li>3.4 Multiplication</li> <li>3.5 Conversion</li> </ul>
4. Tools and instrument	<ul style="list-style-type: none"> <li>4.1 Calculator</li> <li>4.2 Cell phone</li> <li>4.3 Computer</li> </ul>
<p><b>Evidence Guide</b></p> <p>The evidence must be authentic, valid, sufficient, reliable, consistent, recent and meet all requirements of current version of the Unit of Competency.</p>	
1. Critical aspects of competency	<ul style="list-style-type: none"> <li>1.1 Identified calculation requirements from workplace information</li> <li>1.2 Selected appropriate method to carry out the calculation requirements</li> <li>1.3 Completed calculations using appropriate tools and instruments</li> </ul>
2. Underpinning knowledge	<ul style="list-style-type: none"> <li>2.1 Numerical concept</li> <li>2.2 Basic mathematical methods such as addition, subtraction, multiplication, division and percentage</li> </ul>

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	<p>2.3 Mathematical language, symbols and terminology</p> <p>2.4 Measuring units</p> <p>2.5 Use of computer applications for computing</p>
3. Underpinning skills	<p>3.1 Constructing simple problems with workplace information</p> <p>3.2 Solving problems using appropriate method and instrument</p>
4. Required attitude	<p>4.1 Commitment to occupational health and safety</p> <p>4.2 Promptness in carrying out activities</p> <p>4.3 Sincere &amp; honest to duties</p> <p>4.4 Tidiness &amp; timeliness</p> <p>4.5 Eagerness to learn</p> <p>4.6 Environmental concerns</p> <p>4.7 Communication with peers and seniors in workplace</p> <p>4.8 Respect to peers and seniors in workplace</p>
5. Resource implication	<p>The following resources must be provided:</p> <p>5.1 Workplace (actual or simulated)</p> <p>5.2 Tools, equipment and physical facilities appropriate to perform activities.</p> <p>5.3 Materials, consumables to perform activities.</p>
6. Methods of assessment	<p>Methods of assessment may include but not limited:</p> <p>6.1 Written test</p> <p>6.2 Demonstration</p> <p>6.3 Oral questioning</p> <p>6.4 Portfolio</p>
7. Context of assessment	<p>7.1 Competency assessment must be done in a training center or in an actual or simulated work place after completion of the training module.</p> <p>7.2 Assessment should be done by NSDA certified assessor</p>

### Accreditation Requirements

Training Providers must be accredited by National Skills Development Authority (NSDA), the National Quality Assurance Body, or a body with delegated authority for quality assurance to conduct training and assessment against this unit of competency for credit towards the award of any NTVQF qualification. Accredited providers assessing against this unit of competency must meet the quality assurance requirements set by NSDA.





**National Technical and Vocational Qualifications Framework for Bangladesh  
Unit of Competency**

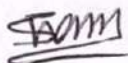
<b>Unit Code and Title</b>	<b>GCU16L1V1: Operate in a Team Environment</b>
<b>Unit Descriptor</b>	This unit covers the knowledge, skills and attitudes required to operate in a team environment. It specifically includes identifying team goals and work processes, identifying own role and responsibilities within team communicating and co-operate with team members and practicing problem solving within the team.
<b>Nominal Hours</b>	<b>20 Hours</b>
<b>Elements of Competency</b>	<b>Performance Criteria</b> <b><u>Bold &amp; underlined</u></b> terms are elaborated in the Range of Variables
1. Identify team goals and work processes	1.1 Roles and objectives of the team are identified and interpreted 1.2 Roles and responsibilities of team members are identified and interpreted
2. Identify own role and responsibilities within team	2.1 Individual role and responsibilities of <b><u>team members</u></b> are identified within the team environment 2.2 Reporting relationships are interpreted within team and external to team
3. Communicate and co-operate with team members	3.1 Communication channels are followed 3.2 Effective forms of communication are used to interact with team members 3.3 Other teammates' tasks are identified and support provided when requested 3.4 The team is encouraged through <b><u>sharing information</u></b> or expertise, working together to solve problems, and putting team success first 3.5 Views and opinions of other team members are interpreted and respected

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4. Practice problem solving within the team	<p>4.1 Problems faced at the individual and team level are identified and showed insight into the root-causes of problems.</p> <p>4.2 Range of solutions and courses of action are identified together with benefits, costs, and risks associated with each</p> <p>4.3 Good ideas of others to help develop solutions are recognised and advice sought from those who have solved similar problems</p> <p>4.4 Recommendations for improving team work are put forward</p>
<b>Range of Variables</b>	
<b>Variable</b>	<b>Range</b> (may include but not limited to):
1. Team members	<p>1.1 Coach / members</p> <p>1.2 Supervisor / manager</p> <p>1.3 Peers / colleagues</p> <p>1.4 Employee representative</p>
2. Sharing information	<p>2.1 Agenda</p> <p>2.2 Minutes</p> <p>2.3 Progress and incident reports</p> <p>2.4 Operational manuals</p> <p>2.5 Visual and graphic materials</p> <p>2.6 Emails and SMS</p> <p>2.7 Phone directory</p> <p>2.8 Policy, procedure and standards</p> <p>2.9 Occupational Health and Safety (OSH) information</p>
<p><b>Evidence Guide</b></p> <p>The evidence must be authentic, valid, sufficient, reliable, consistent, recent and meet all requirements of current version of the Unit of Competency.</p>	
1. Critical aspects of competency	<p>1.1 Identified own role and responsibility within team</p> <p>1.2 Communicated and cooperated with team members</p> <p>1.3 Demonstrated problem solving within the team</p>
2. Underpinning knowledge	<p>2.1 Team goals and work process</p> <p>2.2 Roles and responsibilities</p> <p>2.3 Finding problems and solving them</p>

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3. Underpinning skills	3.1 Identifying own role and responsibility within team 3.2 Communicating and cooperating with team members 3.3 Demonstrating problem solving within the team
4. Required attitude	4.1 Commitment to occupational health and safety 4.2 Promptness in carrying out activities 4.3 Sincere and honest to duties 4.4 Environmental concerns 4.5 Eagerness to learn 4.6 Tidiness and timeliness 4.7 Respect for rights of peers and seniors in workplace 4.8 Communication with peers and seniors in workplace
5. Resource implication	The following resources must be provided: 5.1 Workplace (actual or simulated) 5.2 Relevant materials and equipment 5.3 Relevant specifications or work instructions
6. Methods of assessment	Methods of assessment may include but not limited to: 6.1 Written test 6.2 Demonstration 6.3 Oral questioning 6.4 Portfolio
7. Context of assessment	7.1 Competency assessment must be done in a training center or in an actual or simulated work place after Completion of the training module. 7.2 Assessment should be done NSDA certified assessor
<p><b>Accreditation Requirements</b></p> <p>Training Providers must be accredited by National Skills Development Authority (NSDA), the National Quality Assurance Body, or a body with delegated authority for quality assurance to conduct training and assessment against this unit of competency for credit towards the award of any NTVQF qualification. Accredited providers assessing against this unit of competency must meet the quality assurance requirements set by NSDA.</p>	



**National Technical and Vocational Qualifications Framework for Bangladesh**  
**Unit of Competency**

<b>Unit Code and Title</b>	<b>GCU14L1V1: Carryout Workplace Interaction</b>
<b>Unit Descriptor</b>	This unit covers the knowledge, skills and attitude required to carry out workplace interaction. It specifically includes interpreting workplace communication and etiquette, reading and understanding workplace documents, participating in workplace meetings and discussions and practicing professional ethics at workplace.
<b>Nominal Hours</b>	<b>15 Hours</b>
<b>Elements of Competency</b>	<b>Performance Criteria</b> <b><u>Bold underlined</u></b> terms are elaborated in the Range of Variables
1. Interpret workplace communication and etiquette	<p>1.1 Workplace code of conducts are interpreted as per organizational guidelines</p> <p>1.2 Appropriate lines of communication are maintained with supervisors and colleagues</p> <p>1.3 Workplace interactions are conducted in a <b><u>courteous manner</u></b> to gather and convey information</p> <p>1.4 Questions about routine <b><u>workplace procedures and matters</u></b> are asked and responded as required</p>
2. Read and understand workplace documents	<p>2.1 Workplace documents are interpreted as per standard.</p> <p>2.2 Assistance is taken to aid comprehension when required from peers / supervisors</p> <p>2.3 Visual information / symbols / signage's are understood and followed</p> <p>2.4 Specific and relevant information are accessed from <b><u>appropriate sources</u></b></p> <p>2.5 Appropriate medium is used to transfer information and ideas</p>
3. Participate in workplace meetings and discussions	<p>3.1 Team meetings are attended on time and meeting procedures and etiquette are followed</p> <p>3.2 Own opinions are expressed and others opinions are listened without interruption</p> <p>3.3 Inputs are provided consistent with meeting purpose and meeting outcomes are implemented</p>

Team

4. Practice professional ethics at workplace	4.1 Responsibilities as a team member are demonstrated and kept promises and commitments made to others 4.2 Tasks are performed in accordance with workplace procedures 4.3 Confidentiality is respected and maintained 4.4 Situations and actions considered inappropriate or which present a conflict of interest are avoided
<b>Range of Variables</b>	
<b>Variable</b>	<b>Range (may include but not limited to):</b>
1. Courteous manner	1.1 Effective questioning 1.2 Active listening 1.3 Speaking skills
2. Workplace procedures and matters	2.1 Notes 2.2 Agenda 2.3 Simple reports 2.3.1 Progress report 2.3.2 Incident report 2.4 Job sheets 2.5 Operational manuals 2.6 Brochures and promotional material 2.7 Visual and graphic materials 2.8 Standards 2.9 OSH information 2.10 Signs
3. Appropriate sources	3.1 HR Department 3.2 Managers 3.3 Supervisors
<b>Evidence Guide</b>	
The evidence must be authentic, valid, sufficient, reliable, consistent, recent and meet all requirements of current version of the Unit of Competency.	
1. Critical aspects of competency	1.1 Maintained workplace communication and etiquette 1.2 Followed workplace instructions and symbols 1.3 Followed team meeting and etiquette
2. Underpinning knowledge	2.1 Workplace communication and etiquette 2.2 Workplace documents, signs and symbols 2.3 Meeting procedure and etiquette

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3. Underpinning skills	3.1 Maintaining workplace communication and etiquette 3.2 Following workplace instructions and symbols 3.3 Following team meeting and etiquette
4. Underpinning attitude	4.1 Commitment to occupational health and safety 4.2 Promptness in carrying out activities 4.3 Sincere and honest to duties 4.4 Environmental concerns 4.5 Eagerness to learn 4.6 Tidiness and timeliness 4.7 Respect for rights of peers and seniors in workplace 4.8 Communication with peers and seniors in workplace
5. Resource implications	The following resources must be provided: 5.1 Work place Procedure 5.2 Materials relevant to the proposed activity 5.3 All tools, equipment, material and documentation required. 5.4 Relevant specifications or work instructions
6. Methods of assessment	Methods of assessment may include but not limited to: 6.1 Written test 6.2 Demonstration 6.3 Oral questioning 6.4 Portfolio
7. Context of assessment	7.1 Competency assessment must be done in a training center or in an actual or simulated work place after Completion of the training module 7.2 Assessment should be done by NSDA certified assessor

**Accreditation Requirements**

Training Providers must be accredited by National Skills Development Authority (NSDA), the National Quality Assurance Body, or a body with delegated authority for quality assurance to conduct training and assessment against this unit of competency for credit towards the award of any NTVQF qualification. Accredited providers assessing against this unit of competency must meet the quality assurance requirements set by NSDA.

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## **The Sector Specific Competencies**

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**National Technical and Vocational Qualifications Framework for Bangladesh  
Unit of Competency**

<b>Unit Code and Title</b>	<b>SSU03I03L2V1: Apply Occupational Health and Safety (OSH) in the Workplace</b>
<b>Unit Descriptor</b>	This unit covers the knowledge, skills and attitudes required to apply occupational health and safety (OSH) in the workplace. Its specifically includes identifying OSH policies and procedures, applying personal health and safety practices, reporting hazards and risks and responding to emergencies.
<b>Nominal Hours</b>	<b>20 Hours</b>
<b>Elements of Competency</b>	<b>Performance Criteria</b> <b><u>Bold &amp; underlined</u></b> terms are elaborated in the Range of Variables
1. Identify OSH policies and procedures	<p>1.1 <b><u>Occupational Health and Safety (OSH) policies</u></b> and safe operating procedures are interpreted.</p> <p>1.2 Safety signs and symbols are identified and followed.</p> <p>1.3 Response, evacuation procedures and other contingency measures are interpreted as per standards.</p>
2. Apply personal health and safety practices	<p>2.1 Occupational Health and Safety (OSH) policies and procedures are applied in the workplace.</p> <p>2.2 Common health issues are recognised.</p> <p>2.3 Common safety issues are identified.</p>
3. Report hazards and risks	<p>3.1 Hazards and risks are identified.</p> <p>3.2 Hazards and risks assessment and controls are interpreted.</p> <p>3.3 Hazards and incidents in the workplace are reported to appropriate personnel according to workplace procedures.</p>

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4. Respond to emergency situations	4.1 Alarms and warning devices are identified. 4.2 <b><u>Emergency response plans and procedures</u></b> are comprehended. 4.3 <b><u>First aid procedures</u></b> during emergency situations are recalled. 4.4 Appropriate responses in an emergency situation are followed.
<b>Range of Variables</b>	
<b>Variable</b>	<b>Range</b> (may include but not limited to):
1. Occupational Health and Safety (OSH) policies	1.1 Organisational OSH policies 1.2 International OSH requirements 1.3 Fire safety rules and regulations
2. Emergency response plans and procedures	2.1 Firefighting procedures 2.2 Earthquake response procedures 2.3 Emergency response plans and procedures 2.4 Medical and first aid
3. First aid procedure	3.1 Washing of open wound 3.2 Washing chemically infected area 3.3 Applying bandage 3.4 Taking appropriate medicine
<b>Evidence Guide</b> The evidence must be authentic, valid, sufficient, reliable, consistent, recent and meet all requirements of current version of the Unit of Competency.	
1. Critical aspects of competency	1.1 Identified OSH policies and procedures. 1.2 Applied personal health and safety practices (including PPE). 1.3 Reported hazards and risks. 1.4 Responded to emergencies.
2. Underpinning knowledge	2.1 Workplace OSH policies and procedures. 2.2 Work safety procedures. 2.3 Emergency response procedures: 2.3.1 Firefighting 2.3.2 Earthquake response 2.3.3 Accident response 2.4 Types of hazards (biological, chemical and physical) and their effects.

	<p>2.5 OSH awareness.</p> <p>2.6 Personal Protective Equipment (PPE).</p>
3. Underpinning skills	<p>3.1 Identifying OSH policies and procedures.</p> <p>3.2 Applying personal health and safety practices.</p> <p>3.3 Reporting hazards and risks.</p> <p>3.4 Responding to emergencies.</p>
4. Underpinning attitude	<p>4.1 Commitment to occupational health and safety</p> <p>4.2 Promptness in carrying out activities</p> <p>4.3 Sincere and honest to duties</p> <p>4.4 Eagerness to learn</p> <p>4.5 Tidiness and timeliness</p> <p>4.6 Environmental concerns</p> <p>4.7 Respect for rights of peers and seniors in workplace</p> <p>4.8 Communication with peers and seniors in workplace</p>
5. Resource implications	<p>The following resources must be provided:</p> <p>5.1 Workplace (actual or simulated).</p> <p>5.2 Firefighting equipment.</p> <p>5.3 Emergency response manual.</p> <p>5.4 First aid kits.</p> <p>5.5 Stationary &amp; Learning manual.</p>
6. Methods of assessment	<p>Methods of assessment may include but not limited to:</p> <p>6.1 Written test</p> <p>6.2 Demonstration</p> <p>6.3 Oral questioning</p> <p>6.4 Portfolio</p>
7. Context of assessment	<p>7.1 Competency assessment must be done in a training centre or in an actual or simulated work place after Completion of the training module.</p> <p>7.2 Assessment should be done by NSDA certified assessor.</p>

### **Accreditation Requirements**

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**National Technical and Vocational Qualifications Framework for Bangladesh  
Unit of Competency**

<b>Unit Code and Title</b>	<b>SSU01I03L2V1: Work in the Leather, Footwear and Leather Goods Industries</b>	
<b>Unit Descriptor</b>	This unit covers the knowledge, skills and attitudes required to work in the leather, footwear and leather goods industries. It specifically includes identifying positions, job roles and responsibilities, identifying materials used in leather and leather goods industries and explaining workflow of making footwear and leather goods.	
<b>Nominal Hours</b>	<b>30 Hours</b>	
<b>Elements of Competency</b>	<b>Performance Criteria</b> <b><u>Bold &amp; underlined</u></b> terms are elaborated in the Range of Variables	
1. Identify positions, job roles and responsibilities	1.1 Positions, job roles and responsibilities in the leather, footwear and leather goods industries are identified. 1.2 Positions and job roles are differentiated clearly with key responsibilities.	
2. Identify materials used in leather, footwear and leather goods industries	2.1 <b><u>Raw materials used in the leather industries</u></b> are identified. 2.2 <b><u>Materials used in the footwear industries</u></b> are identified. 2.3 <b><u>Materials used in the leather goods industries</u></b> are identified.	
3. Explain workflow of making footwear and leather goods	3.1 <b><u>Workflow of footwear making</u></b> is identified and recognized. 3.2 <b><u>Workflow of leather goods making</u></b> is identified and recognized.	
<b>Range of Variables</b>		
<b>Variables</b>	<b>Range</b> (may include but not limited to):	

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1. Raw materials used in leather industries	<ul style="list-style-type: none"> <li>1.1 Cow hides</li> <li>1.2 Buffalo hides</li> <li>1.3 Goat skins</li> <li>1.4 Sheep skins</li> </ul>
2. Materials used in footwear industries	<ul style="list-style-type: none"> <li>2.1 Upper materials</li> <li>2.2 Lining materials</li> <li>2.3 Interlining materials</li> <li>2.4 Reinforcement materials</li> <li>2.5 Threads</li> <li>2.6 Accessories</li> <li>2.7 Adhesives</li> <li>2.8 Insole materials</li> <li>2.9 Soling materials</li> </ul>
3. Materials used in leather goods industries	<ul style="list-style-type: none"> <li>3.1 Upper materials</li> <li>3.2 Lining materials</li> <li>3.3 Interlining materials</li> <li>3.4 Reinforcement materials</li> <li>3.5 Accessories</li> <li>3.6 Adhesives</li> <li>3.7 Threads</li> </ul>
4. Workflow of footwear making	<ul style="list-style-type: none"> <li>4.1 Designing</li> <li>4.2 Pattern making</li> <li>4.3 Cutting</li> <li>4.4 Preparation and setting</li> <li>4.5 Sewing/upper closing</li> <li>4.6 Lasting and making</li> <li>4.7 Shoe finishing</li> <li>4.8 Quality control</li> <li>4.9 Packaging</li> </ul>
5. Workflow of leather goods making	<ul style="list-style-type: none"> <li>5.1 Designing</li> <li>5.2 Pattern making</li> <li>5.3 Cutting</li> <li>5.4 Setting and assembling</li> <li>5.5 Finishing</li> <li>5.6 Quality control</li> <li>5.7 Packaging</li> </ul>

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<b>Evidence Guide</b>	
The evidence must be authentic, valid, sufficient, reliable, consistent, recent and meet all requirements of current version of the Unit of Competency.	
1. Critical aspects of competency	1.1 Identified raw materials used in leather industries. 1.2 Identified materials used in leather goods industries. 1.3 Identified materials used in footwear industries.
2. Underpinning knowledge	2.1 Job roles and responsibilities. 2.2 Raw materials used in leather industries. 2.3 Materials used in footwear industries. 2.4 Materials used in leather goods industries.
3. Underpinning skills	3.1 Interpreting job roles and responsibilities. 3.2 Identifying raw materials used in leather industries. 3.3 Identifying materials used in footwear industries. 3.4 Identifying materials used in leather goods industries. 3.5 Recognizing workflow of footwear and leather goods making.
4. Underpinning attitude	4.1 Commitment to occupational health and safety 4.2 Promptness in carrying out activities 4.3 Sincere and honest to duties 4.4 Eagerness to learn 4.5 Tidiness and timeliness 4.6 Environmental concerns 4.7 Respect for rights of peers and seniors in workplace 4.8 Communication with peers and seniors in workplace
5. Resource implications	The following resources must be provided: 5.1 Workplace (actual or simulated). 5.2 Tools, equipment and physical facilities appropriate to perform activities. 5.3 Materials and consumables to perform activities.
6. Methods of assessment	Methods of assessment may include but not limited to: 6.1 Written test 6.2 Demonstration 6.3 Oral questioning 6.4 Portfolio

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7. Context of assessment	7.1 Competency assessment must be done in a training Centre or in an actual or simulated work place after completion of the training module. 7.2 Assessment should be done by NSDA certified assessor.
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**Accreditation Requirements**

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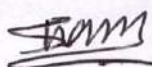
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## The Occupation Specific Competencies

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**National Technical and Vocational Qualifications Framework for Bangladesh  
Unit of Competency**

<b>Unit Code and Title</b>	<b>OSU01I03L2V1: Interpret Cutting Operations</b>
<b>Unit Descriptor</b>	This unit covers the knowledge, skills and attitudes required to interpret cutting machine operations. It specifically includes interpreting basic concepts of cutting operations, identifying materials used for cutting operation, checking materials received from concerned department and identifying machines, tools and equipment.
<b>Nominal Hours</b>	<b>35 Hours</b>
<b>Elements of Competency</b>	<b>Performance Criteria</b> <b><u>Bold &amp; underlined</u></b> terms are elaborated in the Range of Variables
1. Interpret basic concepts of cutting operations	1.1 Basic concepts of cutting operations are summarized. 1.2 <b><u>Types of cutting operations</u></b> are stated as per standard operating procedures. 1.3 <b><u>Quality of a cutter / clicker</u></b> is listed. 1.4 <b><u>Principles of cutting machine operations</u></b> are outlined.
2. Identify materials used for cutting operation	2.1 <b><u>Types of materials</u></b> for cutting are listed. 2.2 <b><u>Materials for cutting</u></b> are identified.
3. Check materials received from concern department	3.1 Materials received from concerned department are checked as per <b><u>job card</u></b> . 3.2 <b><u>Defects of leather</u></b> are identified and marked. 3.3 Records are maintained as per company guidelines.
4. Identify machines, tools and equipment	4.1 <b><u>Tools and equipment</u></b> used in cutting machine operations are identified. 4.2 <b><u>Machines</u></b> used in cutting operations are identified. 4.3 Cutting knives/dies are checked, handled and stored as per guidelines.
<b>Range of Variables</b>	





<b>Variables</b>	<b>Range (may include but not limited to):</b>
1. Types of cutting operations	1.1 Hand cutting 1.2 Machine cutting
2. Quality of a cutter / clicker	2.1 Quality requirement 2.2 Material, specification and Standard Operating Procedure (SOP) 2.3 Principles and safety precautions of cutting and clicking (Change) 2.4 Subsequent operations in shoe making 2.5 Color realization 2.6 Judgment and accuracy 2.7 Logical reasoning ability 2.8 Interlock different shapes 2.9 Quick decision-making
3. Principles of cutting machine operations	3.1 Set up the machine according to the knife height 3.2 Proper lighting on the working table 3.3 Cutting knife always sharp and proper shape 3.4 Defect free skin while cutting 3.5 Quality requirements of the parts of shoe 3.6 Label the cutting board surface 3.7 No overcut and undercut of component
4. Types of materials	4.1 Leather 4.2 Synthetics 4.3 Fabrics 4.4 Reinforcements / interlinings 4.5 Sheet
5. Materials for cutting	5.1 Upper leather 5.2 Lining leather 5.3 Sole leather 5.4 Insole board 5.5 Synthetics 5.6 Fabrics 5.7 Foams 5.8 Reinforcements

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6. Job card	6.1 Plan / order number 6.2 Article number 6.3 Size range 6.4 Number of pairs / pieces 6.5 Calculated leather allowance 6.6 Received quantity of leather 6.7 Returned quantity of leather 6.8 Leather name 6.9 Colour of leather
7. Defect of leather	7.1 Natural / Pre-mortem defects: 7.1.1 Loose grain 7.1.2 Growth marks 7.1.3 Pin hole 7.1.4 Tick marks 7.1.5 Skin disease 7.1.6 Vein marks 7.1.7 Grain damage 7.1.8 Pox marks 7.1.9 Scratch marks 7.2 Manmade / Post-mortem defects: 7.2.1 Flay cuts 7.2.2 Salt stain 7.2.3 Brand marks 7.2.4 Color/shade variation 7.2.5 Grain pattern variation 7.2.6 Wound mark 7.2.7 Looseness 7.2.8 Grain jam
8. Tools and equipment	8.1 Cutting dies / knives 8.2 Scissors 8.3 Thickness gauge 8.4 Hammer 8.5 Marker / silver pen 8.6 Cutting wax
9. Machines	9.1 Sewing arm clicking press 9.2 Travelling head clicking press (THCP) 9.3 Beam cutting machine 9.4 Strap cutting machine

Team

## Evidence Guide

The evidence must be authentic, valid, sufficient, reliable, consistent, recent and meet all requirements of current version of the Unit of Competency.

1. Critical aspects of competency	<ul style="list-style-type: none"><li>1.1 Identified machines used in cutting operations.</li><li>1.2 Identified materials for cutting operations.</li><li>1.3 Identified defects of leather.</li><li>1.4 Operated cutting machine.</li></ul>
2. Underpinning knowledge	<ul style="list-style-type: none"><li>2.1 Basic concepts of cutting</li><li>2.2 Types of cutting</li><li>2.3 Quality of a cutter/clicker</li><li>2.4 Principles of cutting machine operations</li><li>2.5 Machines, tools and equipment</li><li>2.6 Knife/dies management</li><li>2.7 Types of materials for cutting</li><li>2.8 Job card</li><li>2.9 Defects of leather</li><li>2.10 Maintain records</li></ul>
3. Underpinning skills	<ul style="list-style-type: none"><li>3.1 Interpreting types of cutting.</li><li>3.2 Using of machines, tools and equipment in cutting machine operation.</li><li>3.3 Identifying materials for cutting operations.</li><li>3.4 Interpreting job card.</li><li>3.5 Identifying defects of leather.</li></ul>
4. Underpinning attitude	<ul style="list-style-type: none"><li>4.1 Commitment to occupational health and safety</li><li>4.2 Promptness in carrying out activities</li><li>4.3 Sincere and honest to duties</li><li>4.4 Environmental concerns</li><li>4.5 Eagerness to learn</li><li>4.6 Tidiness and timeliness</li><li>4.7 Respect for rights of peers and seniors in workplace</li><li>4.8 Communication with peers and seniors in workplace</li></ul>
5. Resource implications	<p>The following resources must be provided:</p> <ul style="list-style-type: none"><li>5.1 Workplace (actual or simulated).</li><li>5.2 Tools, equipment and physical facilities appropriate to perform activities.</li><li>5.3 Materials consumables to perform activities.</li></ul>
6. Methods of assessment	<p>Methods of assessment may include but not limited to:</p> <ul style="list-style-type: none"><li>6.1 Written test</li></ul>

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	6.2 Demonstration 6.3 Oral questioning 6.4 Portfolio
7. Context of assessment	7.1 Competency assessment must be done in a training centre or in an actual or simulated work place after completion of the training module. 7.2 Assessment should be done by NSDA certified assessor.

**Accreditation Requirements**

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**National Technical and Vocational Qualifications Framework for Bangladesh**  
**Unit of Competency**

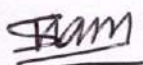
<b>Unit Code and Title</b>	<b>OSU02I03L2V1: Interpret Quality Standards of Leather &amp; Leather product components</b>
<b>Unit Descriptor</b>	This unit covers knowledge, skills and attitudes required to interpret quality standard of leather. It specifically includes interpreting the quality standard of leather and interpreting quality requirements of components of Leather shoes
<b>Nominal Hours</b>	<b>40 Hours</b>
<b>Elements of Competency</b>	<b>Performance Criteria</b> <b><u>Bold &amp; underlined</u></b> terms are elaborated in the Range of Variables
1. Interpret the quality standard of leather	1.1 <b><u>Types of leathers</u></b> are identified. 1.2 <b><u>Quality regions of leather</u></b> are interpreted. 1.3 Quality standard of leather are interpreted. 1.4 Line of tightness and stretchiness of leather are identified.
2. Interpret quality requirements of components of Leather shoes	2.1 <b><u>Components of shoes</u></b> are identified. 2.2 <b><u>Quality requirements of components</u></b> are listed. 2.3 <u>Underlay, folding and lasting margin of shoe upper parts</u> are identified.
<b>Range of Variables</b>	
<b>Variables</b>	<b>Range</b> (may include but not limited to):
1. Types of leather	1.1. Upper leather - Full grain leather - Corrected grain leather - Suede leather - Nubuck leather 1.2. Lining leather - Grain leather - Split leather - Corrected grain leather 1.3. Insole leather 1.4. Sole leather

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2. Quality regions of leather	<ul style="list-style-type: none"> <li>2.1. Butt</li> <li>2.2. Shoulder</li> <li>2.3. Neck</li> <li>2.4. Belly</li> <li>2.5. Shank</li> </ul>
3. Components of shoes	<p>The sequence of activities in the flow char listed below:</p> <ul style="list-style-type: none"> <li>3.1. Vamp</li> <li>3.2. Toe cap</li> <li>3.3. Quarter</li> <li>3.4. Counter</li> <li>3.5. Back strap</li> <li>3.6. Tongue</li> <li>3.7. Eye stay</li> </ul>
4. Quality requirements of shoes	<ul style="list-style-type: none"> <li>4.1. Toe cap</li> <li>4.2. Vamp</li> <li>4.3. Outside quarter</li> <li>4.4. Inside quarter</li> <li>4.5. Eye stays</li> <li>4.6. Back strap</li> <li>4.7. Counter</li> <li>4.8. Tongue</li> </ul>
<p><b>Evidence Guide</b>  The evidence must be authentic, valid, sufficient, reliable, consistent, recent and meet all requirements of current version of the Unit of Competency.</p>	
1. Critical aspects of competency	<ul style="list-style-type: none"> <li>1.1 Identified quality regions of leather.</li> <li>1.2 Identify component of shoes.</li> </ul>
2. Underpinning knowledge	<ul style="list-style-type: none"> <li>2.1 Types of leathers.</li> <li>2.2 Quality regions of leather.</li> <li>2.3 Line of tightness and line of stretchiness of leather.</li> <li>2.4 Parts of shoe upper.</li> <li>2.5 Quality requirements of shoe parts.</li> <li>2.6 Underlay, folding and lasting margin of a shoe upper parts.</li> </ul>

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3. Underpinning skills	3.1 Identifying quality regions of leather. 3.2 Identifying line of tightness and line of stretchiness of leather. 3.3 Interpreting quality requirements of different shoe parts.
4. Underpinning attitude	4.1 Commitment to occupational health and safety 4.2 Promptness in carrying out activities 4.3 Sincere and honest to duties 4.4 Eagerness to learn 4.5 Tidiness and timeliness 4.6 Environmental concerns 4.7 Respect for rights of peers and seniors in workplace 4.8 Communication with peers and seniors in workplace
5. Resource implications	The following resources must be provided: 5.1 Workplace (actual or simulated). 5.2 Tools, equipment and physical facilities appropriate to perform activities. 5.3 Materials consumables to perform activities.
6. Methods of assessment	Methods of assessment may include but not limited to: 6.1 Written test 6.2 Demonstration 6.3 Oral questioning 6.4 Portfolio
7. Context of assessment	7.1 Competency assessment must be done in a training center or in an actual or simulated work place after completion of the training module. 7.2 Assessment should be done by NSDA certified assessor.
<p><b>Accreditation Requirements</b></p> <p>Training Providers must be accredited by National Skills Development Authority (NSDA), the National Quality Assurance Body, or a body with delegated authority for quality assurance to conduct training and assessment against this unit of competency for credit towards the award of any NTVQF qualification. Accredited providers assessing against this unit of competency must meet the quality assurance requirements set by NSDA.</p>	



**National Technical and Vocational Qualifications Framework for Bangladesh**  
**Unit of Competency**

<b>Unit Code and Title</b>	<b>OSU03I03L2V1: Perform Leather Cutting by Machine</b>
<b>Unit Descriptor</b>	This unit covers knowledge, skills and attitudes required to perform leather cutting by machine. It specifically includes following OSH practices, interpreting laws of cutting, adjusting and setup machine, performing cutting of leather by machine and maintaining workplace cleanliness.
<b>Nominal Hours</b>	<b>90 Hours</b>
<b>Elements of Competency</b>	<b>Performance Criteria</b> <b><u>Bold &amp; underlined</u></b> terms are elaborated in the Range of Variables
1. Follow OSH practices	1.1 <b><u>Personal Protective Equipment (PPE)</u></b> is used 1.2 Occupational Health and Safety (OSH) is followed
2. Interpret laws of cutting	2.1 Received leather is checked according to the approved samples and job card. Leathers are sorted according to size, grain pattern, shades, thickness and finish. 2.2 <b><u>Laws of cutting</u></b> are interpreted.
3. Adjust and setup machine	3.1 <b><u>Tools and equipment</u></b> are checked as per job requirements. 3.2 <b><u>Machine setup</u></b> is adjusted as per standard operating procedure.
4. Perform cutting of leather by machine	4.1 <b><u>Tasks to be performed before cutting</u></b> are listed. 4.2 <b><u>Tasks to be performed during cutting</u></b> are listed. 4.3 <b><u>Tasks to be performed after cutting</u></b> are listed. 4.4 Interlocking/nesting using tracing paper is performed. 4.5 Cutting of leather is performed following interlocking as per job requirements. 4.6 Laws of cutting are followed. 4.7 Defective pieces are replaced and recorded.
5. Maintain workplace cleanliness	5.1 <b><u>Workplace cleanliness</u></b> is carried out and maintained as per workplace standards. 5.2 Waste is disposed of according to company regulations. 5.3 Tools and materials are restored in the safe place.

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<b>Range of Variables</b>	
<b>Variable</b>	<b>Range</b> (may include but not limited to):
1. Personal Protective Equipment (PPE)	1.1 Hand gloves 1.2 Safety boots and shoes 1.3 Safety goggles/ Eye protector 1.4 Masks 1.5 Apron 1.6 Finger guard 1.7 Hair protector 1.8 Ear guard
2. Laws of cutting	2.1 Check materials, knives/dies, job cards and production sample before cutting. 2.2 Cut all components tight to toe. 2.3 Cut largest sizes from largest skins. 2.4 Save defective skins for optimal uses. 2.5 Plan ahead, do not make a cut without planning where the next cut will go. 2.6 Interlock the knives / dies. 2.7 Cut small and large sizes together to optimize cutting value. 2.8 Ensure that the leather components are matched in pairs. 2.9 Check on quantity and quality of cut components.
3. Tools and equipment	3.1 Cutting dies/knives 3.2 Scissors 3.3 Horse/trolley 3.4 Cutting board 3.5 Thickness gauge 3.6 Markers 3.7 Cutting wax
4. Machine setup	4.1 Beam height 4.2 Pneumatic pressure 4.3 Cycle time

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5. Tasks to be performed before cutting	<ul style="list-style-type: none"> <li>5.1 Get the material</li> <li>5.2 Check the cutting knife</li> <li>5.3 Check the cutting board and plate</li> <li>5.4 Check the lighting illumination</li> <li>5.5 Check the defects of leather</li> </ul>
6. Tasks to be performed during cutting	<ul style="list-style-type: none"> <li>6.1 Start cutting from butt to neck</li> <li>6.2 Cut the larger size knife/dies first</li> <li>6.3 Place knife/dies as close as possible</li> <li>6.4 Use smaller areas for smaller knife/dies</li> <li>6.5 Manage defects in the most cost-effective way</li> <li>6.6 Follow the safety measure</li> <li>6.7 Control of cutting is done by checking quantity, quality and economy</li> </ul>
7. Tasks to be performed after cutting	<ul style="list-style-type: none"> <li>7.1 Check the cut components and make pair wise</li> <li>7.2 Tie them with the rubber band</li> <li>7.3 Put into the bag along with job card</li> <li>7.4 Return the balance material</li> </ul>
8. Workplace cleanliness	<ul style="list-style-type: none"> <li>8.1 Physical cleanliness</li> <li>8.2 Mechanical cleanliness</li> <li>8.3 Environment cleanliness</li> </ul>
<p><b>Evidence Guide</b></p> <p>The evidence must be authentic, valid, sufficient, reliable, consistent, recent and meet all requirements of current version of the Unit of Competency.</p>	
1. Critical aspects of competency	<ul style="list-style-type: none"> <li>1.1 Checked the received leather against the approved samples and job card.</li> <li>1.2 Cut leather following optimum interlocking and workplace standards.</li> </ul>
2. Underpinning knowledge	<ul style="list-style-type: none"> <li>2.1 Checking the received leather against the approved samples and job card.</li> <li>2.2 Sorting of leather.</li> <li>2.3 Laws of cutting.</li> <li>2.4 Tools and accessories.</li> <li>2.5 Adjustment of machine.</li> <li>2.6 Cutting of leather following accurate interlocking and job card.</li> <li>2.7 Tasks to be done before, during and after cutting.</li> </ul>

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3. Underpinning skills	<p>3.1 Matching the received leather with the approved samples and job card.</p> <p>3.2 Sorting of leather.</p> <p>3.3 Applying laws of cutting.</p> <p>3.4 Adjusting the machine.</p> <p>3.5 Cutting of leather following interlocking.</p> <p>3.6 Carrying out tasks to be done before, during and after cutting.</p>
4. Underpinning attitude	<p>4.1 Commitment to occupational health and safety</p> <p>4.2 Promptness in carrying out activities</p> <p>4.3 Sincere and honest to duties</p> <p>4.4 Eagerness to learn</p> <p>4.5 Tidiness and timeliness</p> <p>4.6 Environmental concerns</p> <p>4.7 Respect for rights of peers and seniors in workplace</p> <p>4.8 Communication with peers and seniors in workplace</p>
5. Resource implications	<p>The following resources must be provided:</p> <p>5.1 Workplace (actual or simulated).</p> <p>5.2 Tools, equipment and physical facilities appropriate to perform activities.</p> <p>5.3 Materials consumables to perform activities.</p>
6. Methods of assessment	<p>Methods of assessment may include but not limited to:</p> <p>6.1 Written test</p> <p>6.2 Demonstration</p> <p>6.3 Oral questioning</p> <p>6.4 Portfolio</p>
7. Context of assessment	<p>7.1 Competency assessment must be done in a training centre or in an actual or simulated work place after completion of the training module.</p> <p>7.2 Assessment should be done by NSDA certified assessor.</p>

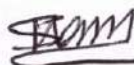
### Accreditation Requirements

Training Providers must be accredited by National Skills Development Authority (NSDA), the National Quality Assurance Body, or a body with delegated authority for quality assurance to conduct training and assessment against this unit of competency for credit towards the award of any NTVQF qualification. Accredited providers assessing against this unit of competency must meet the quality assurance requirements set by NSDA.

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**National Technical and Vocational Qualifications Framework for Bangladesh**  
**Unit of Competency**

Unit Code and Title	<b>OSU04I03L2V1: Perform Cutting of Synthetics, Fabrics and Sheet Materials by Machine</b>
<b>Unit Descriptor</b>	This unit covers knowledge, skills and attitudes required to perform cutting of synthetics, fabrics and sheet materials by machine. It specifically includes following OSH practices, checking work bundles received from concern department performing cutting of synthetics, fabrics and sheet materials and maintaining workplace cleanliness.
<b>Nominal Hours</b>	<b>80 Hours</b>
<b>Elements of Competency</b>	<b>Performance Criteria</b> <b><u>Bold &amp; underlined</u></b> terms are elaborated in the Range of Variables
1. Follow OSH practice	1.1 <b><u>Personal Protective Equipment (PPE)</u></b> is used. 1.2 Occupational Health and Safety (OSH) is followed.
2. Check work bundles received from concern department	2.1 <b><u>Work bundles</u></b> are received from concerned department and checked as per SOP. 2.2 <b><u>Tools and equipment</u></b> are collected and checked. 2.3 Records are maintained as per workplace standards.
3. Perform cutting of synthetics, fabrics and sheet materials	3.1 Distortion and faults on cutting knives and cutting board are identified. 3.2 Cutting dies are selected and used according to <b><u>materials</u></b> . 3.3 Warp-weft directions are identified and followed. 3.4 Cutting of synthetics, fabrics and sheet materials is performed in multilayer as per standard operating procedures (SOP).
4. Maintain workplace cleanliness	4.1 <b><u>Workplace cleanliness</u></b> is carried out and maintained as per workplace standards. 4.2 Waste is disposed of according to company regulations 4.3 Tools and materials are restored in the safe place.



<b>Range of Variables</b>	
<b>Variables</b>	<b>Range (may include but not limited to):</b>
1. Personal Protective Equipment (PPE)	1.1 Hand gloves 1.2 Safety boots and shoes 1.3 Safety goggles/ Eye protector 1.4 Masks 1.5 Apron 1.6 Finger guard 1.7 Hair protector 1.8 Ear guard
2. Work bundles	2.1 Rolls of synthetic materials 2.2 Rolls of fabrics 2.3 Reinforcement materials 2.4 Insole materials
3. Tools and equipment	3.1 Cutting dies / knives 3.2 Scissors 3.3 Horse / trolley 3.4 Cutting board 3.5 Thickness gauge 3.6 Markers 3.7 Cutting wax
4. Materials	<b>4.1 Synthetic upper and lining materials</b> 4.1.1 PVC coated fabric 4.1.2 PU coated fabric 4.1.3 Nonwoven materials <b>4.2 Fabrics</b> 4.2.1 Drill cloth 4.2.2 Canvas 4.2.3 Polyester 4.2.4 Cotton 4.2.5 Brushed cotton 4.2.6 Satin <b>4.3 Insole materials</b> 4.3.1 Leather board 4.3.2 Shank board 4.3.3 Fiber board <b>4.4 Sole materials</b> 4.4.1 Sole leather

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	<ul style="list-style-type: none"> <li>4.4.2 Ethylene Vinyl Acetate (EVA) sheet</li> <li>4.4.3 Polyvinyl Chloride (PVC) sheet</li> <li>4.4.4 Thermoplastic Rubber (TPR) sheet</li> <li>4.4.5 Rubber sheet</li> </ul>
5. Workplace cleanliness	<ul style="list-style-type: none"> <li>5.1 Physical cleanliness</li> <li>5.2 Mechanical cleanliness</li> <li>5.3 Environment cleanliness</li> </ul>
<p><b>Evidence Guide</b> The evidence must be authentic, valid, sufficient, reliable, consistent, recent and meet all requirements of current version of the Unit of Competency.</p>	
1. Critical aspects of competency	<ul style="list-style-type: none"> <li>1.1 Performed cutting of synthetics, fabrics and sheet materials in multilayer.</li> <li>1.2 Matched of cut components as per SOP.</li> </ul>
2. Underpinning knowledge	<ul style="list-style-type: none"> <li>2.1 Classification of synthetics.</li> <li>2.2 Classification of fabric.</li> <li>2.3 Tools and accessories.</li> <li>2.4 Warp-weft directions of fabrics and synthetics.</li> <li>2.5 Cut components are matched as per SOP.</li> </ul>
3. Underpinning skills	<ul style="list-style-type: none"> <li>3.1 Performing cutting of synthetics, fabrics and sheet materials in multilayer.</li> <li>3.2 Matching of cut components as per SOP.</li> <li>3.3 Maintaining record as per workplace standard.</li> </ul>
4. Underpinning attitude	<ul style="list-style-type: none"> <li>4.1 Commitment to occupational health and safety</li> <li>4.2 Promptness in carrying out activities</li> <li>4.3 Sincere and honest to duties</li> <li>4.4 Environmental concerns</li> <li>4.5 Eagerness to learn</li> <li>4.6 Tidiness and timeliness</li> <li>4.7 Respect for rights of peers and seniors in workplace</li> <li>4.8 Communication with peers and seniors in workplace</li> </ul>
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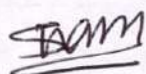
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## Validation of Competency Standard by Standard and Curriculum Validation Committee (SCVC)

The Competency Standards for National Skills Certificate in **Cutting Machine Operations, NTVQF L-II** Qualification is validated by SCVC on 12 November 2019 and approved by NSDA.

### Respectable members of the SCVC:

Cutting Machine Operations, NTVQF L-II		
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## Copyright

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This Competency Standard for **Cutting Machine Operations** is a document for the development of curricula, teaching and learning materials, and assessment tools. It also serves as the document for providing training consistent with the requirements of industry in order for individuals who graduated through the established standard via competency-based assessment to be suitably qualified for a relevant job.

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