



**STANDARD KEMAHIRAN PEKERJAAN KEBANGSAAN
(NATIONAL OCCUPATIONAL SKILLS STANDARD)**

**HEALTHCARE LAUNDRY
OPERATION**

LEVEL 2



**Jabatan Pembangunan Kemahiran
Kementerian Sumber Manusia, Malaysia**



Department of Skills Development (DSD)

Ministry of Human Resources

62530 PUTRAJAYA, MALAYSIA

**STANDARD KEMAHIRAN PEKERJAAN KEBANGSAAN
(NATIONAL OCCUPATIONAL SKILLS STANDARD)**

FOR

HEALTHCARE LAUNDRY OPERATION

LEVEL 2

Copyright © DSD 2015

All rights reserved

No part of this publication may be produced, stored in data base, retrieval system, or in any form by any means, electronic, mechanical, photocopying, recording or otherwise without prior written permission from Department of Skills Development (DSD)

ABBREVIATIONS

AS / NZS	Australia and New Zealand Standard on Laundry Processing
BEMS	Biomedical Engineering Maintenance Services
CBW	Continuous Batch Washer
CLS	Cleansing Services
CWMS	Clinical Waste Management Services
DOE	Department Of Environment
FEMS	Facility Engineering Maintenance Services
HSS	Hospital Support Services
JCI	Joint Commission International
LLS	Linen and Laundry Services
MSQH	Malaysian Society for Quality in Health
PPE	Personal Protective Equipment
SOP	Standard Operation Procedure
TRSA	Textile Rental Services Association of America
VOC	Volatile Organic Compounds
WE	Washer Extractor

STANDARD PRACTICE
NATIONAL OCCUPATIONAL SKILLS STANDARD (NOSS) FOR
HEALTHCARE LAUNDRY OPERATION
LEVEL 2

1. INTRODUCTION

The cleaning industry provides several different services. Business in this large industry mostly fit into one of these areas: cleaning & janitorial services and laundry services, which include healthcare laundry services, retail laundry services and commercial laundry services.

In this modern era, healthcare is perceived as an organisation that administrates the field relating to leadership, management, and administration of hospitals, hospital networks and healthcare systems. However, the present system of facilities management in the Healthcare industry today leads to a systematic, competitive and patient oriented types of governances that focus and devoted to the care and maintenance of the hospital engineering systems, either soft or hard, to ensure the facilities and its assets are in a good condition. Furthermore, healthcare support and core activities should be well-defined and in tandem with the healthcare strategic contexts.

Privatisation of healthcare support services is the most successful outsourcing activities in the Malaysian healthcare system. The main agendas of privatisation are to differentiate and perform the non-core support activities such as maintenance of engineering assets and facilities and to essentially support the main focus of Healthcare functions.

Malaysia started its privatisation of healthcare support services since in 1997, to allow the medical practitioners to devote their full commitment on the core functions which on the patient care and medical activities. Hence, the practice is able to increase the efficiency of clinical services and retains its own qualified and experienced expertise. The outsourced five non-core hospital support services are namely Biomedical Engineering Maintenance Services (BEMS), Facility Engineering Maintenance Services (FEMS), Linen and Laundry Services (LLS), Cleansing Services (CLS) and Clinical Waste Management Services (CWMS). Effective 1st April 2015, the Malaysian government has appointed five main concessionaires to manage public hospital's Hospital Support Services (HSS) for 148 government hospitals.

The five main concessionaires are Edgenta Mediserve Sdn Bhd, Radicare (M) Sdn Bhd, Medivest Sdn Bhd, Sedafiat Sdn Bhd and One Medicare Sdn Bhd. These five companies are presently providing HSS for all government hospitals and clinics in Malaysia and selected number of private healthcare companies.

Linen & Laundry Management Services is one of the hospital support services under the Hospitals Privatisation Project. The demand has increased gradually for the past

17 years from 2,900 tons of clean linen in 1997 to 58,200 tons in 2013 and the fee paid by the government for the services at 122 hospitals in 1997 had increased from RM11.5 million to RM222.6 million for 140 hospitals in 2013 (Kejuruteraan, B.P., 2014). The services are devoted to washing, delivering and collection of linen according to the agreed frequencies, schedules and routes from the laundry facilities to the end user in order to achieve an adequate, clean and constant supply of linen for hospital usage.

The main activities in linen service are devoted to the delivery of good clean linen and collection of soiled linen to and from ward or user location in accordance to the pre-determined schedules, frequencies and routes. Typical linen operation process flow in the public healthcare is depicted in Figure 1. Good quality linen refers to hygienically clean and meeting standard (size, type, material and colour) as set by the Ministry of Health. New linen need to be purchased constantly to replace condemned linen, losses and increased in demand to ensure adequacy in the hospitals. Tools and equipment such as laundry bags, trolleys and bag holders for the purpose of collection and delivery activities need to be adequately available. Linen service is also responsible for the maintenance and management of related stores to ensure they are clean, well ventilated; adequate stacking racks and has a proper inventory system.

Laundry service is an interdependency process with linen service, responsible in providing an adequate, clean and constant supply of linen for hospital usage. The healthcare laundry consists of delicate and controlled process to serve its purpose which includes sorting, washing, extracting, drying, ironing, folding, mending and delivering, and ensuring hygienic precautions are maintained in the process.

The laundries are regulated by the Ministry of Health and shall adhere to several legislations and specific requirements including the related environmental aspects. Malaysian Society for Quality in Health (MSQH) guidelines, Australia and New Zealand Standard on Laundry Processing (AS/NZS 4146:2000), Textile Rental Services Association of America (TRSA), Joint Commission International (JCI) Standards are amongst the standards adopted by the Malaysian public healthcare laundry system.

Soiled linen from healthcare industry is classified as clinical soiled and must be treated in a hygienic manner to avoid cross infection during transportation, handling and washing process. Healthcare soiled linen is washed according to the types and degree of soiled, material and colour, and each types of category has its own pre-set washing programme. Hot water, chemicals such as alkaline builder, detergent, bleaches, disinfectant and softener are commonly used to facilitate in removal of soil and at the same assist in microbial kill.

Linen and laundry services in nature are risky activities. Hence, occupational health and safety play important role to curb and minimise incidents and accidents. There is an established health and safety programmes such as education programme to educate people on the danger of soiled linen, cross infection, lint, laundry wastes and proper handling of related laundry tools and equipment. Medical check-up and immunisation programmes are mandatory to be given to the linen and laundry workers

in addition to the Personal Protective Equipment (PPE) such as safety glasses, face masks, respirators, gloves and safety boots.

Procedures adhered in the healthcare laundry are related to process flow of the laundry activities to minimise incident and accident particularly on cross infections and to protect the environment. The availability of contingency plan in case of emergency is perceived as important towards a continual supply of linen to the hospitals.

The wastewater generated from laundry facility is hazardous in nature as it contains lint, grit, emulsified oil, grease, heavy metals and Volatile Organic Compounds (VOC) and require further treatments prior to its release into the streams in compliance to the schedule waste A or B requirements regulated by Environmental Quality Act 1974.

REFERENCES

1. Aini Jaapar, Ramlan Dahlan and Nor Azmi Ahmad Bari, Healthcare Facilities Management: A Case Study on Privatisation of Linen and Laundry Management Services in Malaysian Public Healthcare System. *Aust. J. Basic & Appl. Sci.*, 9(7): 129- 132, 2015
2. Kejuruteraan, B.P., 2014 "Privatisation Hospital Support Services (HSS) - Current contract," in *Konvensyen Strategik Pengurusan Aset Kerajaan (KONSPAK 2014)*.

2. OCCUPATIONAL STRUCTURE

SECTOR	HOSPITALITY AND TOURISM			
SUB SECTOR	HOUSEKEEPING			
AREA	HEALTHCARE LAUNDRY SERVICES (PLANT OPERATION)	HEALTHCARE LAUNDRY SERVICES (LINEN SERVICES)	LAUNDRY SERVICES (RETAIL LAUNDRY SERVICES)	LAUNDRY SERVICES (COMMERCIAL LAUNDRY SERVICES)
LEVEL 5	PLANT MANAGER	FACILITY MANAGER	RETAIL LAUNDRY MANAGER	COMMERCIAL LAUNDRY MANAGER
LEVEL 4	PLANT ASSISTANT MANAGER	ASSISTANT FACILITY MANAGER	RETAIL LAUNDRY ASSISTANT MANAGER	COMMERCIAL LAUNDRY ASSISTANT MANAGER
LEVEL 3	PLANT SUPERVISOR	LINEN SUPERVISOR	RETAIL LAUNDRY SUPERVISOR	COMMERCIAL LAUNDRY SUPERVISOR
LEVEL 2	LINE LEADER / SECTION LEADER	SENIOR LINEN ATTENDANCE	RETAIL LAUNDRY ATTENDANT	COMMERCIAL LAUNDRY ASSISTANT SUPERVISOR
LEVEL 1	HEALTHCARE LAUNDRY OPERATOR	LINEN ATTENDANT	NO LEVEL	COMMERCIAL LAUNDRY ATTENDANT

Fig. 1.1 Occupational Structure for Healthcare Laundry Services in Malaysia

Occupational Area Structure

SECTOR	HOSPITALITY AND TOURISM			
SUB SECTOR	HOUSEKEEPING			
AREA	HEALTHCARE LAUNDRY SERVICES (PLANT OPERATION)	HEALTHCARE LAUNDRY SERVICES (LINEN SERVICES)	LAUNDRY SERVICES (RETAIL LAUNDRY SERVICES)	LAUNDRY SERVICES (COMMERCIAL LAUNDRY SERVICES)
LEVEL 5	HEALTHCARE LAUNDRY PLANT OPERATION MANAGEMENT	LINEN OPERATION MANAGEMENT	RETAIL LAUNDRY OPERATION MANAGEMENT	COMMERCIAL LAUNDRY OPERATION MANAGEMENT
LEVEL 4	HEALTHCARE LAUNDRY PLANT OPERATION ADMINISTRATION	LINEN OPERATION ADMINISTRATION	RETAIL LAUNDRY OPERATION ADMINISTRATION	COMMERCIAL LAUNDRY OPERATION ADMINISTRATION
LEVEL 3	HEALTHCARE LAUNDRY OPERATION SUPERVISION	LINEN OPERATION SERVICES SUPERVISION	RETAIL AND COMMERCIAL LAUNDRY OPERATION SUPERVISION	
LEVEL 2	HEALTHCARE LAUNDRY OPERATION	LINEN OPERATION SERVICES	RETAIL AND COMMERCIAL LAUNDRY OPERATION	
LEVEL 1	EMBEDDED TO LEVEL 2	EMBEDDED TO LEVEL 2	NO LEVEL	EMBEDDED TO LEVEL 2

Fig. 1.2 Occupational Area Structure (OAS) for Healthcare Laundry Services in Malaysia

3. DEFINITION OF COMPETENCY LEVELS

The NOSS is developed for various occupational areas. Candidates for certification must be assessed and trained at certain levels to substantiate competencies. Below is a guideline of each NOSS Level as defined by the Department of Skills Development, Ministry of Human Resources, Malaysia.

Level 1: (Operation Level)	Competent in performing a range of varied work activities, most of which are routine and predictable.
Level 2: (Operation Level)	Competent in performing a significant range of varied work activities, performed in a variety of contexts. Some of the activities are non-routine and require individual responsibility and autonomy.
Level 3: (Supervisory Level)	Competent in performing a broad range of varied work activities, performed in a variety of contexts, most of which are complex and non-routine. There is considerable responsibility and autonomy and control or guidance of others is often required.
Level 4: (Executive Level)	Competent in performing a broad range of complex technical or professional work activities performed in a wide variety of contexts and with a substantial degree of personal responsibility and autonomy. Responsibility for the work of others and allocation of resources is often present.
Level 5: (Managerial Level)	Competent in applying a significant range of fundamental principles and complex techniques across a wide and often unpredictable variety of contexts. Very substantial personal autonomy and often significant responsibility for the work of others and for the allocation of substantial resources features strongly, as do personal accountabilities for analysis, diagnosis, planning, execution and evaluation.

4. AWARD OF CERTIFICATE

The Director General shall award, to any person upon completing successfully the NOSS program, the following skills level qualifications:

- a) Malaysia Skills Certificate / Sijil Kemahiran Malaysia (SKM) Level 1, 2 & 3
- b) Malaysia Skills Diploma / Diploma Kemahiran Malaysia (DKM) Level 4
- c) Malaysia Skills Advanced Diploma / Diploma Lanjutan Kemahiran Malaysia (DLKM) Level 5
- d) Statement of Achievement / Penyata Pencapaian (PC)

No person shall be awarded a Certificate unless he / she satisfies the requirements set by Malaysia Skills Certification System.

5. JOB COMPETENCIES

A Healthcare Laundry Operation (Level 2) personnel is competent in performing:

- Linen Segregation
- Linen Washing
- Linen Drying
- Linen Ironing
- Linen Folding
- Linen Packaging
- Laundry Plant Housekeeping (*Elective*)

6. WORKING CONDITIONS

Generally, a Healthcare laundry operation (Level 2) personnel work in normal working hours from morning to evening depending on organisation nature of business. They may require to work extra hours to fulfil internal and external requirements. They also may be needed to work in shift to accommodate work requirements. All personnel need to undergo immunisation & vaccination and use / wear appropriate attire (Personal Protective Equipment) during the commencement of their jobs. They may work individually or group in a conducive and ventilated environment.

7. EMPLOYMENT PROSPECTS

The employment prospects for Healthcare laundry personnel are very huge. The industry has shortage of skilled healthcare laundry operation (Level 2) personnel. They may be employed at healthcare laundry services organisation, nursing care facilities, dry cleaning & laundry services outlet, and accommodation providers.

8. CAREER ADVANCEMENT

To become healthcare laundry operation (Level 2) personnel, one must first gain knowledge and competency as a healthcare laundry operator through structured training or on-the job training. Employers may require a high school certificate or skills certificate for healthcare laundry operator position. After these personnel have gained experience and becomes highly skilled and knowledgeable, he or she may be eligible for a promotion to become a healthcare laundry supervisor. The amount of time to be promoted depends on a number of variables, including the availability of a job opening and the competitive nature between workers for the leadership role. He or she is likely to succeed if he or she understands business management practices along with having a good technical ability.

9. SOURCES OF ADDITIONAL INFORMATION

LOCAL

- i. Kementerian Kesihatan Malaysia (KKM)
Bahagian Perkhidmatan Kejuruteraan (BPK)
Aras 3 – 7, Blok E3, Parcel E, Presint 1
Pusat Pentadbiran Kerajaan Persekutuan
62590 Putrajaya
Tel : 03 – 8000 8000
Fax : 03 – 8888 6187
Website : <http://www.moh.gov.my>
- ii. Malaysian Society for Quality in Health (MSQH)
B.6-1, Level 6, Wisma Sejarah
230 Jalan Tun Razak
50400 Kuala Lumpur
Tel : 03 – 2682 2232
Fax : 03 – 2681 3199
Website : <http://www.msqh.com.my/msqh/>
- iii. Selangor & Kuala Lumpur Laundry Association
544A, Jalan Riang 11, Taman Gembira
Off Jalan Kucai Lama
58200 Kuala Lumpur
Tel : 03 – 7981 5767
Fax : 03 – 7982 7435
Website : <http://laundryasso.com>

INTERNATIONAL

- i. Australian Healthcare Laundry & Linen Services Association
- ii. Joint Commission International (JCI)
- iii. Textile Rental Services Association of America (TRSA)

10. ACKNOWLEDGEMENT

The Director General of DSD would like to extend his gratitude to the organisations and individuals who have been involved in developing this standard; especially members of Standard Technical Evaluation Committee (STEC) for validating this document.

STANDARD TECHNICAL EVALUATION COMMITTEE (STEC)		
1.	En. Mohd Yazid bin Kuman	Ketua Penolong Pengarah Kanan (Operasi Hospital) Bahagian Perkhidmatan Kejuruteraan Kementerian Kesihatan Malaysia
2.	En. Sahrizal bin Salleh	Pengurus Operasi Medilaund (M) Sdn Bhd
3.	En. Ramlan bin Dahlan	Juru Perunding Kanan Sistem Hospital Awasan Taraf Sdn Bhd

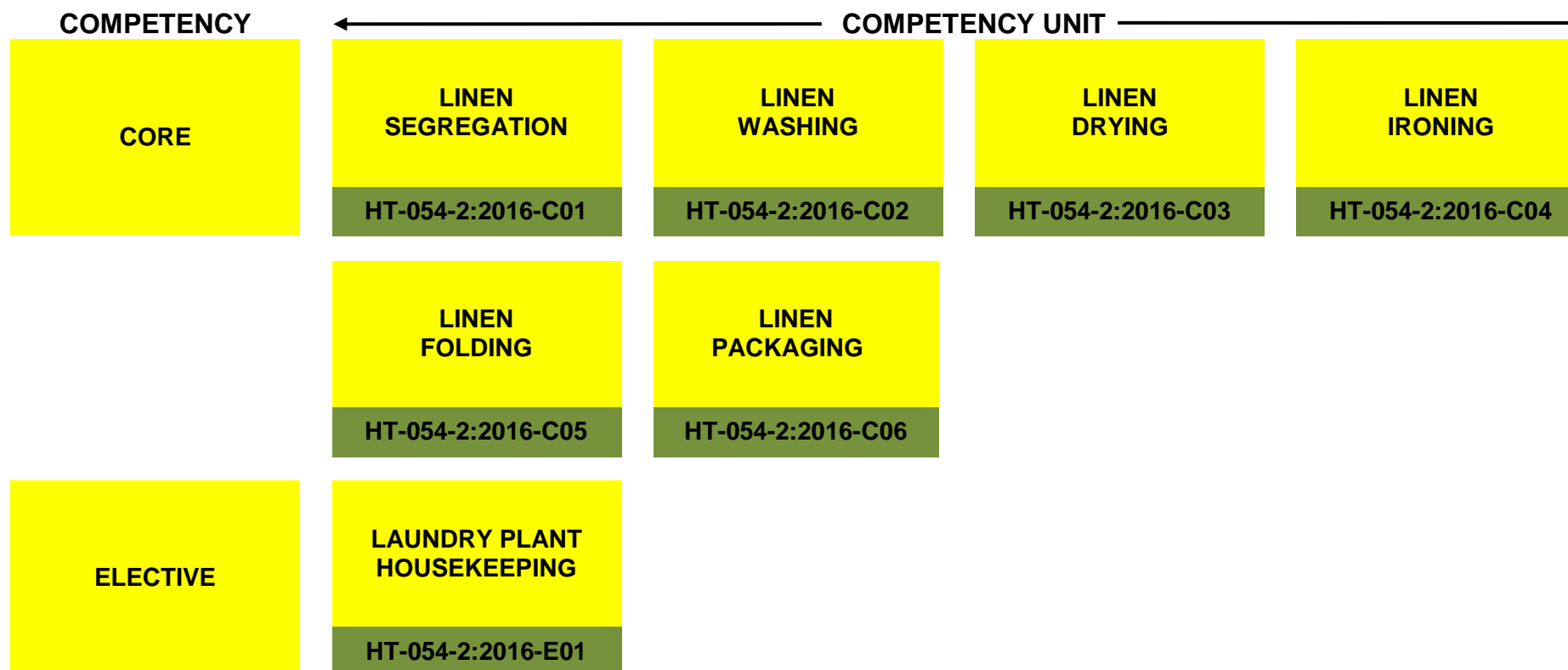
11. NOSS DEVELOPMENT COMMITTEE MEMBERS

HEALTHCARE LAUNDRY OPERATION – LEVEL 2

PANEL EXPERT		
1.	En. Azlan bin Akbar	Director of Business Development Abatag Resources
2.	Pn. Azizah binti Mohd Radzi	Operation Manager Creative Pearl (M) Sdn Bhd
3.	Cik Hami Elmi binti Hussin	Executive Officer MutualPro Team Services (M) sdn Bhd
4.	En. Norazmi bin Mat Amin	Operation Executive Medilaund (M) Sdn Bhd
5.	En. Raja Jaafar bin Raja Ismail	Finance Manager RJ Solution Management Services
6.	Pn. Chik Nor binti Mohamad Rajaludin	Supervisor Faber Mediserve Sdn Bhd
7.	Pn. Noraini binti Abdullah	Supervisor Faber Mediserve Sdn Bhd
8.	En. Mohd Shobhi bin Mustakim	Managing Director Rosby Resources Sdn Bhd
9.	Cik Siti Nurhidayah binti Mohd Shobhi	Operation Executive Abatag Resources
10.	En. Shahridan Mohamad Rosni	Technical Support Service Manager Radicare (M) Sdn Bhd
FACILITATOR		
1.	YM Engku Mohd Azmi bin Dato' Engku Hatim	Total Oracle Sdn Bhd

COMPETENCY PROFILE CHART (CPC)

SECTOR	HOSPITALITY AND TOURISM		
SUB SECTOR	HOUSEKEEPING		
JOB AREA	HEALTHCARE LAUNDRY SERVICES (PLANT OPERATION)		
NOSS TITLE	HEALTHCARE LAUNDRY OPERATION		
JOB LEVEL	TWO (2)	NOSS CODE	HT-054-2:2016



COMPETENCY PROFILE (CP)

SECTOR	HOSPITALITY AND TOURISM			
SUB SECTOR	HOUSEKEEPING			
JOB AREA	HEALTHCARE LAUNDRY SERVICES (PLANT OPERATION)			
NOSS TITLE	HEALTHCARE LAUNDRY OPERATION			
LEVEL	TWO (2)	NOSS CODE	HT-054-2:2016	
CU Title	CU Code	CU Descriptor	CU Work Activities	Performance Criteria
1. Linen Segregation	HT-054-2:2016-C01	<p>Linen segregation is a process of segregating healthcare linen into the correct categories.</p> <p>Competent personnel shall be able to carry out incoming healthcare linen checking, carry out sorting of soiled linen (except infected linen) and carry out linen tagging / labelling. In linen segregation process, the personnel have to refer to MSQH Standard / AS NZS 4146-2000 and company's Standard Operating Procedures (SOP) during determining soiled linen.</p> <p>Efficiency in linen segregation process will ensure that all Healthcare linen is properly segregated for the washing process.</p>	<p>1. Carry out incoming healthcare linen checking</p> <p>2. Carry out soiled linen sorting (except infected linen)</p>	<p>1.1 Types of linen's soiled level determined according to MSQH Standard / AS NZS 4146-2000</p> <p>1.2 Laundry weight and pieces of Healthcare linen determined and confirmed with customer's form</p> <p>1.3 Personal Protective Equipment (PPE) applied according to MSQH Standard / AS NZS 4146-2000</p> <p>2.1 Healthcare linen sorting types determined according to AS NZS 4146-2000</p> <p>2.2 Healthcare linen determined according to colour or types of fabric or types of linen or by degree of soiling</p> <p>2.3 Linen's fabric materials types such as 100% cotton, 100%</p>

CU Title	CU Code	CU Descriptor	CU Work Activities	Performance Criteria
				<p>polyester and polyester cotton determined and segregated according to company's Standard Operating Procedures (SOP)</p> <p>2.4 Linen types such as patient uniform, hospital staff uniform, ward linen, furnishing items and miscellaneous items determined and segregated according to company's Standard Operating Procedures (SOP)</p> <p>2.5 Linen's degree of soiling such as light, medium and heavy soiled determined and segregated according to company's Standard Operating Procedures (SOP)</p> <p>2.6 Patient belongings, hospital's tools and body parts determined and segregated according to foreign items category</p> <p>2.7 Physical condition of linen checked for defect according to company's Standard Operating Procedures (SOP)</p> <p>2.8 Soiled linen transferred into dedicated trolley according to company's Standard Operating Procedures (SOP)</p> <p>2.9 Customer's left belongings recorded and stored</p>

CU Title	CU Code	CU Descriptor	CU Work Activities	Performance Criteria
			3. Carry out linen tagging / labelling	<p>according to company's Standard Operating Procedures (SOP)</p> <p>3.1 Tagging method selected according to company's Standard Operating Procedures (SOP)</p> <p>3.2 Items properly determined and tagged according company's Standard Operating Procedures (SOP)</p> <p>3.3 Segregation area & equipment cleaned and sanitised according to company's Standard Operating Procedures (SOP) / MSQH Standard / AS NZS 4146-2000</p>

CU Title	CU Code	CU Descriptor	CU Work Activities	Performance Criteria
2. Linen Washing	HT-054-2:2016-C02	<p>Soiled linen is washed according to the healthcare laundry requirements. Different items require different washing cycles, chemical dosage and mechanical action.</p> <p>Competent personnel shall be able to carry out weighing of soiled linen, carry out laundry washing, monitor washing process, segregate clean linen (only for infected linen) and transfer clean linen to drying area. In laundry washing process, the personnel have to refer to MSQH Standard, AS NZS 4146-2000, company's Standard Operating Procedure (SOP), washing manual and manufacturer instruction manual.</p> <p>Efficiency in linen washing process will ensure that the soiled linen items are efficiently washed.</p>	1. Carry out weighing of soiled linen	<p>1.1 Weighing method determined according to linen capacity and company's Standard Operating Procedures (SOP)</p> <p>1.2 Machine types and capacity determined according to manufacturer instruction manual</p> <p>1.3 Types of stain such as blood, ink, rust, food stain, oil / grease / wax, gum, carbon stain and glue determined according to AS NZS 4146-2000</p> <p>1.4 Wash formula such as chemical dosage, washing time, temperature setting, water level and linen weight determined according to washing manual</p> <p>1.5 Weighing scale accuracy / functionality checked according to company's Standard Operating Procedures (SOP)</p> <p>1.6 Soiled linen weighed and recorded according to company's Standard Operating Procedures (SOP)</p>

CU Title	CU Code	CU Descriptor	CU Work Activities	Performance Criteria
			<p>4. Segregate clean linen (only for infected linen)</p> <p>5. Transfer clean linen to drying area</p>	<p>4.1 Linen segregation requirements determined according to soiled linen category</p> <p>4.2 Sorting of cleaned infected linen carried out according to company's Standard Operating Procedures (SOP)</p> <p>4.3 Linen tagging and labelling carried out according to company's Standard Operating Procedures (SOP)</p> <p>5.1 Cleaned linen unloaded to laundry trolley and washing result such as abnormal smell and obvious stain checked according to company's Standard Operating Procedures (SOP)</p> <p>5.2 Abnormal smell and obvious stained conveyed to superior and corrective action recommended according to company's Standard Operating Procedures (SOP)</p> <p>5.3 Unclean linen segregated and recorded for re-wash according to company's Standard Operating Procedures (SOP)</p> <p>5.4 Washing area & equipment cleaned and sanitised according to company's</p>

CU Title	CU Code	CU Descriptor	CU Work Activities	Performance Criteria
			3. Transfer clean linen to ironing or folding area	<p>Standard Operating Procedures (SOP)</p> <p>3.1 Clean linen unloaded to laundry trolley and drying result such as drying level and visual linen condition checked according to company's Standard Operating Procedures (SOP)</p> <p>3.2 Rejected linen condition conveyed to superior and corrective action recommended according to company's Standard Operating Procedures (SOP)</p> <p>3.3 Rejected linen segregated and recorded for re-wash, mending and condemn according to company's Standard Operating Procedures (SOP)</p> <p>3.4 Drying area & equipment cleaned and sanitised according to company's Standard Operating Procedures (SOP) / MSQH Standard / AS NZS 4146-2000</p>
4. Linen Ironing	HT-054-2:2016-C04	Linen Ironing is a process of using heated tool / machine to remove wrinkles from linen by setting ironing program on the	1. Identify linen ironing requirements	<p>1.1 Ironing machine determined according to linen's types and fabric</p> <p>1.2 Linen material, temperature</p>

CU Title	CU Code	CU Descriptor	CU Work Activities	Performance Criteria
			4. Check ironed linen quality	Procedures (SOP) 4.1 Ironing results such as crumple, stain, odour, tear, burn, wet and dry linen checked according to company's Standard Operating Procedures (SOP) 4.2 Rejected linen condition conveyed to superior and corrective action recommended according to company's Standard Operating Procedures (SOP) 4.3 Rejected linen segregated and recorded for re-wash, mending and condemn according to company's Standard Operating Procedures (SOP) 4.4 Ironing area & equipment cleaned and sanitised according to company's Standard Operating Procedures (SOP) / MSQH Standard / AS NZS 4146-2000
5. Linen Folding	HT-054-2:2016-C05	Linen folding is a process of folding linen according to customer requirements. Competent personnel shall be	1. Identify linen folding requirements	1.1 Folding method determined according to company's Standard Operating Procedures (SOP) 1.2 Folding program such as

CU Title	CU Code	CU Descriptor	CU Work Activities	Performance Criteria
		<p>able to identify linen folding requirements, carry out folding process, monitor folding process and check folded linen quality according to manufacturer instruction manual and company's Standard Operating Procedures (SOP).</p> <p>Efficiency in linen folding process will ensure linen is neatly and uniformly folded in such a way as to avoid unnecessary wrinkles and creases.</p>	<p>2. Carry out folding process</p> <p>3. Monitor folding process</p> <p>4. Check folded linen quality</p>	<p>linen types and folding determined according to customer requirements</p> <p>2.1 Cleaned or ironed linen fed into folding machine and pre set folding program selected according to customer requirements</p> <p>2.2 Linen quality and condition checked according to company's Standard Operating Procedures (SOP)</p> <p>3.1 Machine indicator checked and stopped if any abnormalities in operation according to manufacturer instruction manual</p> <p>3.2 Abnormalities in operation such as abnormal sound and mechanical default conveyed to superior and corrective action recommended according to company's Standard Operating Procedures (SOP)</p> <p>4.1 Folding result such as crumple, stain, odour, tear, burn, wet and dry linen checked according to company's Standard</p>

CU Title	CU Code	CU Descriptor	CU Work Activities	Performance Criteria
				<p>Operating Procedures (SOP)</p> <p>4.2 Rejected linen condition conveyed to superior and corrective action recommended according to company's Standard Operating Procedures (SOP)</p> <p>4.3 Rejected linen segregated and recorded for re-wash, mending and condemn according to company's Standard Operating Procedures (SOP)</p> <p>4.4 Folding area & equipment cleaned and sanitised according to company's Standard Operating Procedures (SOP) / MSQH Standard / AS NZS 4146-2000</p>
6. Linen Packaging	HT-054-2:2016-C06	<p>Linen packaging is a process of packing Healthcare cleaned linen according to customer requirements.</p> <p>In linen packaging activities, the personnel have to refer to customer requirements in order to segregate linen into the correct categories and bag appropriately for transporting to the specific customers. Competent personnel shall be able to prepare linen</p>	<p>1. Prepare linen packaging requirements</p> <p>2. Carry out packaging process</p>	<p>1.1 Packaging specification determined according to customer requirements</p> <p>1.2 Packaging materials such as wrapping plastic, sealing materials, cutting tools and labelling tools prepared according to packaging requirements</p> <p>2.1 Linen quality and condition checked according to</p>

CU Title	CU Code	CU Descriptor	CU Work Activities	Performance Criteria
		<p>packaging requirements, carry out packaging process and carry out package labelling according to company's Standard Operating Procedures (SOP), MSQH Standard and AS NZS 4146-2000.</p> <p>Efficiency in linen packaging will ensure the standard and quality of packaging in preventing cross contamination and can be accepted by customers.</p>	<p>3. Carry out package labelling</p>	<p>company's Standard Operating Procedures (SOP)</p> <p>2.2 Reject linen condition conveyed to superior and corrective action recommended according to company's Standard Operating Procedures (SOP)</p> <p>2.3 Rejected linen segregated and recorded for re-wash, mending and condemn according to company's Standard Operating Procedures (SOP)</p> <p>2.4 Packing area & equipment cleaned and sanitised according to company's Standard Operating Procedures (SOP) / MSQH Standard / AS NZS 4146-2000</p> <p>3.1 Linen packed according to packing specification</p> <p>3.2 Packaging labelled according to packing specifications</p> <p>3.3 Packages weighted and clean linen recorded according to company's Standard Operating Procedures (SOP)</p> <p>3.4 Packages loaded at designated area according to company's Standard Operating Procedures (SOP)</p>

CU Title	CU Code	CU Descriptor	CU Work Activities	Performance Criteria
				3.5 Packing area & equipment cleaned and sanitised according to company's Standard Operating Procedures (SOP) / MSQH Standard / AS NZS 4146-2000
7. Laundry Plant Housekeeping (<i>Elective</i>)	HT-054-2:2016-E01	<p>Laundry Plant Housekeeping is a set of practice performed for disposing of rubbish, cleaning dirty surfaces, dusting and vacuuming.</p> <p>Competent personnel shall be able to perform washroom hygiene and sanitation, perform high-rise area cleaning and perform public area cleaning according to company's Standard Operating Procedures (SOP).</p> <p>Efficiency in laundry plant housekeeping will ensure the preservation of workplace / plant from dust and bacteria.</p>	1. Perform washroom hygiene and sanitation	<p>1.1 Washroom cleaning requirements determined according to company's Standard Operating Procedures (SOP)</p> <p>1.2 Types of cleaning such as spot, daily and periodic cleaning determined according to company's Standard Operating Procedures (SOP)</p> <p>1.3 Types of cleaning apparatus for washroom area determined according to company's Standard Operating Procedures (SOP)</p> <p>1.4 Types of cleaning chemical and dosage determined according to company's Standard Operating Procedures (SOP)</p> <p>1.5 Types of covered and uncovered washing area determined according to company's Standard Operating Procedures (SOP)</p>

CU Title	CU Code	CU Descriptor	CU Work Activities	Performance Criteria
			<p>2. Perform high rise area cleaning</p>	<p>1.6 Personal Protective Equipment (PPE) requirements for washroom cleaning determined according to company's Standard Operating Procedures (SOP)</p> <p>1.7 Spot cleaning carried out according to company's Standard Operating Procedures (SOP)</p> <p>1.8 Daily cleaning carried out according to company's Standard Operating Procedures (SOP)</p> <p>1.9 Periodic cleaning carried out according to company's Standard Operating Procedures (SOP)</p> <p>2.1 Types of cleaning apparatus for high rise area determined according to company's Standard Operating Procedures (SOP)</p> <p>2.2 Personal Protective Equipment (PPE) requirements for high rise area determined according to company's Standard Operating Procedures (SOP)</p> <p>2.3 High rise area cleaning carried out according to company's Standard</p>

CU Title	CU Code	CU Descriptor	CU Work Activities	Performance Criteria
			3. Perform public area cleaning	<p>Operating Procedures (SOP)</p> <p>3.1 Cleaning area determined according to company's Standard Operating Procedures (SOP)</p> <p>3.2 Types of cleaning apparatus for public area determined according to company's Standard Operating Procedures (SOP)</p> <p>3.3 Personal Protective Equipment (PPE) requirements for public area determined according to company's Standard Operating Procedures (SOP)</p> <p>3.4 Public area cleaning carried out according to company's Standard Operating Procedures (SOP)</p>

CURRICULUM of COMPETENCY UNIT (CoCU)

SECTOR	HOSPITALITY AND TOURISM						
SUB SECTOR	HOUSEKEEPING						
JOB AREA	HEALTHCARE LAUNDRY SERVICES (PLANT OPERATION)						
NOSS TITLE	HEALTHCARE LAUNDRY OPERATION						
COMPETENCY UNIT TITLE	LINEN SEGREGATION						
LEARNING OUTCOME	<p>The person who is competent in this competency unit shall be able to ensure that all Healthcare linen is properly segregated for washing process. Upon completion of this competency unit, trainees will be able to:-</p> <ul style="list-style-type: none"> • Carry out incoming healthcare linen checking • Carry out soiled linen sorting (except infected linen) • Carry out linen tagging / labelling 						
PRE-REQUISITE (if applicable)							
COMPETENCY UNIT ID	HT-054-2:2016-C01	LEVEL	2	TRAINING DURATION	80	SKILL CREDIT	8
Work Activities	Related Knowledge	Related Skills	Attitude/Safety/ Environmental	Training Hours	Delivery Mode	Assessment Criteria	
1. Carry out incoming healthcare linen checking	i. Types of customer form such as: <ul style="list-style-type: none"> • Receiving / collection soiled form contents <ul style="list-style-type: none"> ▪ Customer name ▪ Location ▪ Date and time ▪ Serial number ▪ Quantity (by weight / pieces / bag / colour bag) ▪ Signatory of 	i. Determine healthcare linen ii. Determine linen's soiling level in accordance with MSQH Standard / AS NZS 4146-2000 iii. Check incoming customer's linen iv. Apply Personal Protective Equipment (PPE)	<u>Attitude:</u> i. Meticulous in determining healthcare linen <u>Safety:</u> i. Comply with safety requirements	<u>Related Knowledge</u> 5 <u>Related Skills</u> 11	<u>Related Knowledge</u> Lecture / Group Discussion / Video <u>Related Skills</u> Demonstration / Role Play	i. Category of linen bag listed and explained ii. Reject form contents listed and explained iii. Types and purpose of Personal Protective Equipment (PPE) listed and explained	

Work Activities	Related Knowledge	Related Skills	Attitude/Safety/ Environmental	Training Hours	Delivery Mode	Assessment Criteria
	<p>person in charge (customer, driver and receiver)</p> <ul style="list-style-type: none"> ▪ Remarks / special request / special attention linen • Reject form contents <ul style="list-style-type: none"> ▪ Customer name ▪ Location ▪ Date and time ▪ Serial number ▪ Quantity (by weight / pieces / bag / colour bag) ▪ Signatory of person in charge (customer, driver and receiver) ▪ Purpose of reject <ul style="list-style-type: none"> – Rewash – Mending – Condemn ▪ Remarks / special request / special attention linen 					

Work Activities	Related Knowledge	Related Skills	Attitude/Safety/ Environmental	Training Hours	Delivery Mode	Assessment Criteria
	ii. Category of linen bag: <ul style="list-style-type: none"> • General linen (white bag) – • Infection linen (red bag lined with alginate bag) <ul style="list-style-type: none"> ▪ Procedures in handling infected linen • OT linen (green bag) • Rejected linen (brown bag) iii. Types and purpose of Personal Protective Equipment (PPE) such as: <ul style="list-style-type: none"> • Mask • Gloves • Apron • Cap • Safety shoes 					

Work Activities	Related Knowledge	Related Skills	Attitude/Safety/Environmental	Training Hours	Delivery Mode	Assessment Criteria
2. Carry out soiled linen sorting (except infected linen)	i. Sorting types such as: <ul style="list-style-type: none"> • By colour • By fabric type • By linen type • By degree of soiling ii. Types of fabric materials such as: <ul style="list-style-type: none"> • 100% Cotton • 100% Polyester • Polyester cotton iii. Linen types such as: <ul style="list-style-type: none"> • Patient uniform • Hospital staff uniform • Ward linen • Furnishing items • Miscellaneous items iv. Degree of soiling: <ul style="list-style-type: none"> • Light soiled • Medium soiled • Heavy soiled v. Types of foreign items such as: <ul style="list-style-type: none"> • Personal belongings • Hospital equipment vi. Types of laundry tools and equipment such as: <ul style="list-style-type: none"> • Soiled linen trolley 	i. Determine sorting types ii. Segregate by colour iii. Segregate by types of fabric iv. Segregate by linen type v. Segregate by degree of soiling vi. Segregate foreign items vii. Check linen condition viii. Transfer soiled linen into dedicated trolley ix. Record customer's left belongings	<u>Attitude:</u> i. Systematic and well-organized in carrying out soiled linen sorting <u>Safety:</u> i. Comply with safety requirements	<u>Related Knowledge</u> 12 <u>Related Skills</u> 28	<u>Related Knowledge</u> Lecture / Group Discussion / Video <u>Related Skills</u> Demonstration / Role Play	i. Types of sorting listed out and explained ii. Types of fabric materials listed out and explained iii. Types of linen listed out and explained iv. Degree of soiling listed out and explained v. Types of foreign items listed out and explained vi. Types of laundry tools and equipment listed out and explained vii. Segregation linen by colour demonstrated viii. Segregation by types of fabric materials demonstrated ix. Segregation by linen type demonstrated x. Segregation by degree of soiled demonstrated

Work Activities	Related Knowledge	Related Skills	Attitude/Safety/ Environmental	Training Hours	Delivery Mode	Assessment Criteria
						xi. Segregation foreign items demonstrated
3. Carry out linen tagging / labelling	i. Tagging method <ul style="list-style-type: none"> • Manual • Computerized ii. Types and purpose of cleaning tools such as: <ul style="list-style-type: none"> • Mop • Sanitizer / disinfectant • Cleaning chemical <ul style="list-style-type: none"> ▪ Dilution 	i. Determine tagging method by customer category ii. Tag linen items iii. Clean and sanitise segregation area and equipment	<u>Attitude:</u> i. Systematic and well-organized in carrying out linen tagging / labeling <u>Safety:</u> i. Comply with safety requirements	<u>Related Knowledge</u> 7 <u>Related Skills</u> 17	<u>Related Knowledge</u> Lecture / Group Discussion / Video <u>Related Skills</u> Demonstration / Role Play	i. Tagging method listed out and explained ii. Types and purpose of cleaning tools listed out and explained iii. Cleaning and sanitising segregation area and equipment demonstrated

Employability Skills

Core Abilities	Social Skills
<p>01.01 Identify and gather information. 01.02 Document information procedures or processes. 01.03 Utilize basic IT applications. 02.01 Interpret and follow manuals, instructions and SOP's. 02.03 Communicate clearly. 02.05 Read / Interpret flowcharts and pictorial information. 03.01 Apply cultural requirement to the workplace. 03.02 Demonstrate integrity and apply practical practices. 03.03 Accept responsibility for own work and work area. 03.04 Seek and act constructively upon feedback about work performance. 03.05 Demonstrate safety skills. 03.06 Respond appropriately to people and situations. 06.01 Understand systems. 06.02 Comply with and follow chain of command. 06.03 Identify and highlight problems. 06.04 Adapt competencies to new situations / systems. 01.04 Analyse information. 03.08 Develop and maintain a cooperation within work group. 04.01 Organize own work activities. 04.03 Organize and maintain own workplace. 04.04 Apply problem solving strategies. 04.05 Demonstrate initiative and flexibility. 06.06 Monitor and correct performance of systems.</p>	<ol style="list-style-type: none"> 1. Communication skills 2. Interpersonal skills 3. Learning skills 4. Leadership skills 5. Multitasking and prioritising 6. Self-discipline 7. Teamwork

Tools, Equipment and Materials (TEM)

ITEMS	RATIO (TEM : Trainees)
1. Receiving / collection soiled form	1:1
2. Reject form	1:1
3. Personal Protective Equipment (PPE) set	1:1
4. General linen (white bag)	1:25
5. Infection linen (red bag lined with alginate bag)	1:25
6. OT linen (green bag)	1:25
7. Rejected linen (brown bag)	1:25
8. Patient uniform	1:5
9. Hospital staff uniform	1:5
10. Ward linen	1:5
11. Furnishing items set (curtain, screen partition, cushion cover, table skirting, etc)	1:5
12. Mop and bucket	1:5
13. Sanitizer / disinfectant chemical	As required
14. MSQH Standard	1:1
15. AS NZS 4146-2000	1:1
16. Joint Commission International (JCI)	1:1
17. Sample of Company's Standard Operating Procedures (SOP)	1:1
18. Sample of Standard Linen and Specification List by Ministry of Health (MOH)	1:1
19. Labelling tools set	1:5

References

REFERENCES

1. America Standard of Testing and Material, ASTM WK35985 - New Practice for Sustainable Laundry Best Management Practices
2. Australia / New Zealand Standard AS/NZS 4146:2000 - Laundry practice
3. Bobák P (2010) Analysis of Energy Consumption in Professional Laundry Care Process, Chemical Engineering Transactions, vol. 21, 109-114
4. Doug Story (2009), "Lesson Required for the Laundry Business of Tomorrow", ALM Journal, Jan/Feb 2009.
5. Fijan S. (2005), "Implementing Hygiene Monitoring System in Hospital Laundries in Order to Reduce Microbial Contamination of Hospital Textile", Journal of Hospital Infection, Vol. 61 pp. 30-38.
6. Institute for Sustainability and Hygiene International, Certification Standards for Processing Reusable Linen, MacKenzie, Brisbane, Queensland, Australia, April 2011.
7. J.A. Wilson et. al. (2005), "Uniform: An Evidence Review of the Microbiological Significance of Uniform and Uniform Policy in the Prevention and Control of Healthcare-Associated Infection", Journal of Hospital Infection, Vol. 66 pp. 301-307.
8. Kelly M. Pyrek (2011), "Healthcare Textile: Laundry Science and Infection Prevention", Infection Control Today.
9. Krishna Veni (2004), "Laundry and Linen Services in Hospital", Paramedical, Vol. Iv No. 1 Jan-Mar.
10. Nathan L. Belkin (2009), "Laundry, Patient Linen, Textile and Uniform", Text of Infection Control and Epidemiology (3rd Revised Edition).
11. Standards Australia and Standards New Zealand, AS/NZS 4146:2000, Australian/New Zealand Standard – Laundry practice, February 2000.
12. Textile Rental Services Association of America, Guidelines for Healthcare Linen Service-1999, By Joint Committee on Healthcare Laundry Guidelines, Alexandria, VA, 1999.
13. Textile Rental Standard Association (TRSA) Handbook, 2009
14. The Environmental Quality Act 1974
15. The Healthcare Laundry Accreditation Council (HLAC), Healthcare Accreditation Standards for Processing Reusable Textiles for Use in Healthcare Facilities 2011 Edition, Frankfort, IL, June 2011.
16. U.S. Department of Health and Human Services, Centers for Disease Control and Prevention (CDC), Guidelines for Environmental Infection Control in Health-Care Facilities, Recommendations of CDC and the Healthcare Infection Control Practices Advisory Committee (HICPAC), Atlanta, GA, 2003.

CURRICULUM of COMPETENCY UNIT (CoCU)

SECTOR	HOSPITALITY AND TOURISM						
SUB SECTOR	HOUSEKEEPING						
JOB AREA	HEALTHCARE LAUNDRY SERVICES (PLANT OPERATION)						
NOSS TITLE	HEALTHCARE LAUNDRY OPERATION						
COMPETENCY UNIT TITLE	LINEN WASHING						
LEARNING OUTCOME	<p>The person who is competent in this competency unit shall be able to ensure that the soiled linen items are efficiently washed. Upon completion of this competency unit, trainees will be able to:-</p> <ul style="list-style-type: none"> • Carry out weighing of soiled linen • Carry out linen washing • Monitor washing process • Segregate clean linen (only for infected linen) • Transfer clean linen to drying area 						
PRE-REQUISITE (if applicable)							
COMPETENCY UNIT ID	HT-054-2:2016-C02	LEVEL	2	TRAINING DURATION	160	SKILL CREDIT	16
Work Activities	Related Knowledge	Related Skills	Attitude/Safety/ Environmental	Training Hours	Delivery Mode	Assessment Criteria	
1. Carry out weighing of soiled linen	i. Linen washing requirements: <ul style="list-style-type: none"> • Weighing method <ul style="list-style-type: none"> ▪ Manual ▪ Computerized ii. Types of machine and capacity <ul style="list-style-type: none"> • Washer Extractor (WE) • Continuous Tunnel Washer (CBW) iii. Wash formula <ul style="list-style-type: none"> • Chemical dosage 	i. Determine types of machine and capacity ii. Determine wash formula iii. Collect segregated soiled linen and / or infected linen (red bag) from segregation area iv. Check weighing scale accuracy / functionality v. Weigh soiled linen vi. Record soiled linen weight	<u>Attitude:</u> i. Meticulous in carrying out weighing of soiled linen <u>Safety:</u> i. Comply with safety requirements	<u>Related Knowledge</u> 5 <u>Related Skills</u> 11	<u>Related Knowledge</u> Lecture / Group Discussion / Video <u>Related Skills</u> Demonstration	i. Types of machine and capacity listed out and explained ii. Wash formula listed out and explained iii. Weighing scale accuracy / functionality listed out and explained	

Work Activities	Related Knowledge	Related Skills	Attitude/Safety/Environmental	Training Hours	Delivery Mode	Assessment Criteria
	<ul style="list-style-type: none"> Washing time Temperature setting Water level Linen weight (maximum load) iv. Weighing scale accuracy / functionality				/ Role Play	iv. Collection of segregated soiled linen and / or infected linen (red bag) from segregation area demonstrated
2. Carry out linen washing	i. Types of stain such as: <ul style="list-style-type: none"> Blood Ink Rust Food stain Oil / grease / wax Gum Carbon stain Glue Hospital chemical (iodine) ii. Types, purpose and dosage of chemical such as: <ul style="list-style-type: none"> Detergent <ul style="list-style-type: none"> Liquid Powder Bleach <ul style="list-style-type: none"> Oxygen bleach Chlorine bleach Softener Sour / Neutraliser 	i. Check chemical adequacy and arrange for replenishment ii. Load soiled linen / infected linen (red bag) into washer iii. Select wash formula program <ul style="list-style-type: none"> By colour By linen type By degree of soiled iv. Set washing program	<u>Attitude:</u> i. Systematic and well-organized in carrying out linen washing <u>Safety:</u> i. Comply with safety requirements	<u>Related Knowledge</u> 17 <u>Related Skills</u> 39	<u>Related Knowledge</u> Lecture / Group Discussion / Video <u>Related Skills</u> Demonstration / Role Play	i. Types of stain listed out and explained ii. Types, purpose and dosage of chemical listed out and explained iii. Washing process listed out and explained iv. Wash formula programme listed out and explained v. Loading of soiled linen / infected linen (red bag) into washer demonstrated vi. Selection of washing

Work Activities	Related Knowledge	Related Skills	Attitude/Safety/ Environmental	Training Hours	Delivery Mode	Assessment Criteria
	<ul style="list-style-type: none"> • Emulsifier iii. Washing process: <ul style="list-style-type: none"> • Pre-wash • Main wash • Rinse • Final rinse • Extract iv. Wash formula programme: <ul style="list-style-type: none"> • Load • Water level • Temperature • Time • Mechanical reaction • Chemical 					formula program by colour / by linen type / by degree of soiling demonstrated
3. Monitor washing process	i. Washing operation monitoring parameters such as: <ul style="list-style-type: none"> • Water level • Temperature • Time • Mechanical reaction • Chemical ii. Abnormalities in machine operation such as: <ul style="list-style-type: none"> • Abnormal sound • Water level • Mechanical defect 	i. Check machine indicator if any abnormalities in operation ii. Determine criticality of abnormalities iii. Handle abnormalities in machine operation according to operation manual iv. Inform superior on abnormalities in operation	<u>Attitude:</u> i. Meticulous in monitoring washing process <u>Safety:</u> i. Comply with safety requirements	<u>Related Knowledge</u> 17 <u>Related Skills</u> 39	<u>Related Knowledge</u> Lecture / Group Discussion / Video <u>Related Skills</u> Demonstration / Role Play	i. Washing operation monitoring parameters demonstrated ii. Abnormalities in machine operation listed out and explained iii. Procedures in handling abnormalities machine operation demonstrated

Work Activities	Related Knowledge	Related Skills	Attitude/Safety/ Environmental	Training Hours	Delivery Mode	Assessment Criteria
	iii. Procedures in handling abnormalities machine operation					
4. Segregate clean linen (only for infected linen)	i. Sorting types such as: <ul style="list-style-type: none"> • By colour (white / coloured) • By fabric type • By linen type ii. Types of fabric materials such as: <ul style="list-style-type: none"> • 100% Cotton • 100% Polyester • Polyester cotton iii. Linen types such as: <ul style="list-style-type: none"> • Patient uniform • Hospital staff uniform • Ward linen • Furnishing items • Miscellaneous items iv. Types of foreign items such as: <ul style="list-style-type: none"> • Personal belongings • Hospital equipment 	i. Identify linen segregation requirements ii. Carry out sorting of cleaned infected linen iii. Carry out linen tagging / labelling	<u>Attitude:</u> i. Systematic and well-organized in segregating clean linen (only for infected linen) <u>Safety:</u> i. Comply with safety requirements	<u>Related Knowledge</u> 5 <u>Related Skills</u> 11	<u>Related Knowledge</u> Lecture / Group Discussion / Video <u>Related Skills</u> Demonstration / Role Play	i. Sorting types listed out and explained ii. Types of fabric materials out and explained iii. Types of linen listed out and explained iv. Types of foreign items listed out and explained v. Sorting of cleaned infected linen demonstrated

Work Activities	Related Knowledge	Related Skills	Attitude/Safety/ Environmental	Training Hours	Delivery Mode	Assessment Criteria
5. Transfer clean linen to drying area	i. Types of laundry tools and equipment such as: <ul style="list-style-type: none"> • Clean linen trolley ii. Washing quality standard iii. Linen reject criteria's such as: <ul style="list-style-type: none"> • Unpleasant smell • Obvious stain iv. Procedures in handling reject linen v. Types and purpose of cleaning tools such as: <ul style="list-style-type: none"> • Mop • Sanitizer / disinfectant • Cleaning chemical <ul style="list-style-type: none"> ▪ Dilution 	i. Unload clean linen to laundry trolley ii. Check washing result iii. Inform superior on abnormal smell and obvious stain (if required) iv. Segregate unclean linen for re-wash and record v. Clean and sanitise washing area and equipment	<u>Attitude:</u> i. Systematic and well-organized in transferring clean linen to drying area <u>Safety:</u> i. Comply with safety requirements	<u>Related Knowledge</u> 5 <u>Related Skills</u> 11	<u>Related Knowledge</u> Lecture / Group Discussion / Video <u>Related Skills</u> Demonstration / Role Play	i. Types of laundry tools and equipment listed out and explained ii. Washing quality standard explained iii. Linen reject criteria's listed out and explained iv. Procedures in handling reject linen demonstrated v. Segregation of unclean linen for re-wash and recorded demonstrated vi. Cleaning and sanitising washing area and equipment demonstrated

Employability Skills

Core Abilities	Social Skills
<p>01.01 Identify and gather information. 01.02 Document information procedures or processes. 01.03 Utilize basic IT applications. 02.01 Interpret and follow manuals, instructions and SOP's. 02.03 Communicate clearly. 02.05 Read / Interpret flowcharts and pictorial information. 03.01 Apply cultural requirement to the workplace. 03.02 Demonstrate integrity and apply practical practices. 03.03 Accept responsibility for own work and work area. 03.04 Seek and act constructively upon feedback about work performance. 03.05 Demonstrate safety skills. 03.06 Respond appropriately to people and situations. 06.01 Understand systems. 06.02 Comply with and follow chain of command. 06.03 Identify and highlight problems. 06.04 Adapt competencies to new situations / systems. 01.04 Analyse information. 03.08 Develop and maintain a cooperation within work group. 04.01 Organize own work activities. 04.03 Organize and maintain own workplace. 04.04 Apply problem solving strategies. 04.05 Demonstrate initiative and flexibility. 06.06 Monitor and correct performance of systems.</p>	<ol style="list-style-type: none"> 1. Communication skills 2. Interpersonal skills 3. Learning skills 4. Leadership skills 5. Multitasking and prioritising 6. Self-discipline 7. Teamwork

Tools, Equipment and Materials (TEM)

ITEMS	RATIO (TEM : Trainees)
1. Washer Extractor (WE)	1:10
2. Continuous Batch Washer (CBW)	1:25
3. Wash formula table	1:1
4. Weighing scale	1:5
5. Detergent	As Required
6. Bleach	As Required
7. Softener	As Required
8. Sour / Neutraliser	As Required
9. Emulsifier	As Required
10. Patient uniform	1:5
11. Hospital staff uniform	1:5
12. Ward linen (refer to CA)	1:5
13. Furnishing items (curtain, screen partition, cushion cover, table skirting, etc)	1:5
14. Clean linen trolley	1:5
15. Mop and bucket	1:5
16. Sanitizer / disinfectant	As required
17. Cleaning chemical	As required
18. MSQH Standard	1:1
19. AS NZS 4146-2000	1:1
20. Joint Commission International (JCI)	1:1
21. Sample of Company's Standard Operating Procedures (SOP)	1:1
22. Sample of Chemical Material Safety Data Sheet (MSDS)	1:1

References

REFERENCES

1. America Standard of Testing and Material, ASTM WK35985 - New Practice for Sustainable Laundry Best Management Practices
2. Australia / New Zealand Standard AS/NZS 4146:2000 - Laundry practice
3. Bobák P (2010) Analysis of Energy Consumption in Professional Laundry Care Process, Chemical Engineering Transactions, vol. 21, 109-114
4. Doug Story (2009), "Lesson Required for the Laundry Business of Tomorrow", ALM Journal, Jan/Feb 2009.
5. Fijan S. (2005), "Implementing Hygiene Monitoring System in Hospital Laundries in Order to Reduce Microbial Contamination of Hospital Textile", Journal of Hospital Infection, Vol. 61 pp. 30-38.
6. Institute for Sustainability and Hygiene International, Certification Standards for Processing Reusable Linen, MacKenzie, Brisbane, Queensland, Australia, April 2011.
7. J.A. Wilson et. al. (2005), "Uniform: An Evidence Review of the Microbiological Significance of Uniform and Uniform Policy in the Prevention and Control of Healthcare-Associated Infection", Journal of Hospital Infection, Vol. 66 pp. 301-307.
8. Kelly M. Pyrek (2011), "Healthcare Textile: Laundry Science and Infection Prevention", Infection Control Today.
9. Krishna Veni (2004), "Laundry and Linen Services in Hospital", Paramedical, Vol. Iv No. 1 Jan-Mar.
10. Nathan L. Belkin (2009), "Laundry, Patient Linen, Textile and Uniform", Text of Infection Control and Epidemiology (3rd Revised Edition).
11. Standards Australia and Standards New Zealand, AS/NZS 4146:2000, Australian/New Zealand Standard – Laundry practice, February 2000.
12. Textile Rental Services Association of America, Guidelines for Healthcare Linen Service-1999, By Joint Committee on Healthcare Laundry Guidelines, Alexandria, VA, 1999.
13. Textile Rental Standard Association (TRSA) Handbook, 2009
14. The Environmental Quality Act 1974
15. The Healthcare Laundry Accreditation Council (HLAC), Healthcare Accreditation Standards for Processing Reusable Textiles for Use in Healthcare Facilities 2011 Edition, Frankfort, IL, June 2011.
16. U.S. Department of Health and Human Services, Centers for Disease Control and Prevention (CDC), Guidelines for Environmental Infection Control in Health-Care Facilities, Recommendations of CDC and the Healthcare Infection Control Practices Advisory Committee (HICPAC), Atlanta, GA, 2003.

CURRICULUM of COMPETENCY UNIT (CoCU)

SECTOR	HOSPITALITY AND TOURISM						
SUB SECTOR	HOUSEKEEPING						
JOB AREA	HEALTHCARE LAUNDRY SERVICES (PLANT OPERATION)						
NOSS TITLE	HEALTHCARE LAUNDRY OPERATION						
COMPETENCY UNIT TITLE	LINEN DRYING						
LEARNING OUTCOME	<p>The person who is competent in this competency unit shall be able to ensure that washed items of linen are dried but not damaged in the process. Upon completion of this competency unit, trainees will be able to:-</p> <ul style="list-style-type: none"> • Carry out linen drying • Monitor drying process • Transfer clean linen to ironing or folding area 						
PRE- REQUISITE (if applicable)							
COMPETENCY UNIT ID	HT-054-2:2016-C03	LEVEL	2	TRAINING DURATION	160	SKILL CREDIT	16
Work Activities	Related Knowledge	Related Skills	Attitude/Safety/ Environmental	Training Hours	Delivery Mode	Assessment Criteria	
1. Carry out linen drying	i. Drying method: <ul style="list-style-type: none"> • Fully dry (for folding) • Semi-dry (for ironing) ii. Dryer program parameter: <ul style="list-style-type: none"> • Linen material • Drying time • Cooling time • Temperature setting • Linen weight / pieces (maximum load) 	i. Identify linen drying requirements ii. Load washed linen into dryer iii. Select and set dryer program	<u>Attitude:</u> i. Meticulous in carrying out linen drying <u>Safety:</u> i. Comply with safety requirements	<u>Related Knowledge</u> 22 <u>Related Skills</u> 50	<u>Related Knowledge</u> Lecture / Group Discussion / Video <u>Related Skills</u> Demonstration / Role Play	i. Drying method listed out and explained ii. Dryer program parameter listed out and explained iii. Loading washed linen into dryer demonstrated	

Work Activities	Related Knowledge	Related Skills	Attitude/Safety/ Environmental	Training Hours	Delivery Mode	Assessment Criteria
2. Monitor drying process	i. Purpose of cleaning lint filter ii. Dryer operation monitoring parameters such as: <ul style="list-style-type: none"> • Drying time • Cooling time • Temperature iii. Effect of incorrect loading of linen materials (mixture of fabric / linen types) iv. Abnormalities in machine operation such as: <ul style="list-style-type: none"> • Abnormal sound • Burning smell • Mechanical defect v. Procedures in handling abnormalities dryer machine operation	i. Clean lint filter ii. Determine criticality of abnormalities iii. Handle abnormalities in machine operation according to operation manual iv. Inform superior on abnormalities in operation	<u>Attitude:</u> i. Meticulous in monitoring drying process <u>Safety:</u> i. Comply with safety requirements	<u>Related Knowledge</u> 22 <u>Related Skills</u> 50	<u>Related Knowledge</u> Lecture / Group Discussion / Video <u>Related Skills</u> Demonstration / Role Play	i. Purpose of cleaning lint filter listed out and explained ii. Dryer operation monitoring parameters demonstrated iii. Abnormalities in machine operation listed out and explained iv. Procedures in handling abnormalities dryer machine operation demonstrated

Work Activities	Related Knowledge	Related Skills	Attitude/Safety/Environmental	Training Hours	Delivery Mode	Assessment Criteria
3. Transfer clean linen to ironing or folding area	<ul style="list-style-type: none"> i. Types of laundry tools and equipment such as: <ul style="list-style-type: none"> • Clean linen trolley ii. Drying quality standard such as: <ul style="list-style-type: none"> • Drying level • Visual linen condition iii. Procedures in handling rejected linen <ul style="list-style-type: none"> • Inform superior • Segregate • Re-wash • Mending • Condemn iv. Types and purpose of cleaning tools such as: <ul style="list-style-type: none"> • Mop • Sanizer / disinfectant • Clening chemical <ul style="list-style-type: none"> ▪ Dilution 	<ul style="list-style-type: none"> i. Unload clean linen to laundry trolley ii. Check drying results iii. Inform superior on reject linen condition (if required) iv. Segregate and record rejected linen v. Clean and sanitise drying area and equipment 	<p><u>Attitude:</u></p> <ul style="list-style-type: none"> i. Systematic and well-organized in transferring clean linen to ironing or folding area <p><u>Safety:</u></p> <ul style="list-style-type: none"> i. Comply with safety requirements 	<p><u>Related Knowledge</u></p> <p>5</p> <p><u>Related Skills</u></p> <p>11</p>	<p><u>Related Knowledge</u></p> <p>Lecture / Group Discussion / Video</p> <p><u>Related Skills</u></p> <p>Demonstration / Role Play</p>	<ul style="list-style-type: none"> i. Types of laundry tools and equipment listed out and explained ii. Drying quality standard listed out and explained iii. Procedures in handling rejected linen demonstrated iv. Types and purpose of cleaning tools listed out and explained vi. Segregating and recording rejected linen demonstrated v. Cleaning and sanitising drying area and equipment demonstrated

Employability Skills

Core Abilities	Social Skills
<p>01.01 Identify and gather information. 01.02 Document information procedures or processes. 01.03 Utilize basic IT applications. 02.01 Interpret and follow manuals, instructions and SOP's. 02.03 Communicate clearly. 02.05 Read / Interpret flowcharts and pictorial information. 03.01 Apply cultural requirement to the workplace. 03.02 Demonstrate integrity and apply practical practices. 03.03 Accept responsibility for own work and work area. 03.04 Seek and act constructively upon feedback about work performance. 03.05 Demonstrate safety skills. 03.06 Respond appropriately to people and situations. 06.01 Understand systems. 06.02 Comply with and follow chain of command. 06.03 Identify and highlight problems. 06.04 Adapt competencies to new situations / systems. 01.04 Analyse information. 03.08 Develop and maintain a cooperation within work group. 04.01 Organize own work activities. 04.03 Organize and maintain own workplace. 04.04 Apply problem solving strategies. 04.05 Demonstrate initiative and flexibility. 06.06 Monitor and correct performance of systems.</p>	<ol style="list-style-type: none"> 1. Communication skills 2. Interpersonal skills 3. Learning skills 4. Leadership skills 5. Multitasking and prioritising 6. Self-discipline 7. Teamwork

Tools, Equipment and Materials (TEM)

ITEMS	RATIO (TEM : Trainees)
1. Dryer	1:10
2. Dryer program parameter table	1:1
3. Drying quality standard	1:1
4. Patient uniform	1:5
5. Hospital staff uniform	1:5
6. Ward linen	1:5
7. Furnishing items (curtain, screen partition, cushion cover, table skirting, etc)	1:5
8. Clean linen trolley	1:5
9. Mop and bucket	1:5
10. Sanitizer / disinfectant chemical	As required
11. MSQH Standard	1:1
12. AS NZS 4146-2000	1:1
13. Joint Commission International (JCI)	1:1
14. Sample of Company's Standard Operating Procedures (SOP)	1:1
15. Sample of Chemical Material Safety Data Sheet (MSDS)	1:1

References

REFERENCES

1. America Standard of Testing and Material, ASTM WK35985 - New Practice for Sustainable Laundry Best Management Practices
2. Australia / New Zealand Standard AS/NZS 4146:2000 - Laundry practice
3. Bobák P (2010) Analysis of Energy Consumption in Professional Laundry Care Process, Chemical Engineering Transactions, vol. 21, 109-114
4. Doug Story (2009), "Lesson Required for the Laundry Business of Tomorrow", ALM Journal, Jan/Feb 2009.
5. Fijan S. (2005), "Implementing Hygiene Monitoring System in Hospital Laundries in Order to Reduce Microbial Contamination of Hospital Textile", Journal of Hospital Infection, Vol. 61 pp. 30-38.
6. Institute for Sustainability and Hygiene International, Certification Standards for Processing Reusable Linen, MacKenzie, Brisbane, Queensland, Australia, April 2011.
7. J.A. Wilson et. al. (2005), "Uniform: An Evidence Review of the Microbiological Significance of Uniform and Uniform Policy in the Prevention and Control of Healthcare-Associated Infection", Journal of Hospital Infection, Vol. 66 pp. 301-307.
8. Kelly M. Pyrek (2011), "Healthcare Textile: Laundry Science and Infection Prevention", Infection Control Today.
9. Krishna Veni (2004), "Laundry and Linen Services in Hospital", Paramedical, Vol. Iv No. 1 Jan-Mar.
10. Nathan L. Belkin (2009), "Laundry, Patient Linen, Textile and Uniform", Text of Infection Control and Epidemiology (3rd Revised Edition).
11. Standards Australia and Standards New Zealand, AS/NZS 4146:2000, Australian/New Zealand Standard – Laundry practice, February 2000.
12. Textile Rental Services Association of America, Guidelines for Healthcare Linen Service-1999, By Joint Committee on Healthcare Laundry Guidelines, Alexandria, VA, 1999.
13. Textile Rental Standard Association (TRSA) Handbook, 2009
14. The Environmental Quality Act 1974
15. The Healthcare Laundry Accreditation Council (HLAC), Healthcare Accreditation Standards for Processing Reusable Textiles for Use in Healthcare Facilities 2011 Edition, Frankfort, IL, June 2011.
16. U.S. Department of Health and Human Services, Centers for Disease Control and Prevention (CDC), Guidelines for Environmental Infection Control in Health-Care Facilities, Recommendations of CDC and the Healthcare Infection Control Practices Advisory Committee (HICPAC), Atlanta, GA, 2003.

CURRICULUM of COMPETENCY UNIT (CoCU)

SECTOR	HOSPITALITY AND TOURISM						
SUB SECTOR	HOUSEKEEPING						
JOB AREA	HEALTHCARE LAUNDRY SERVICES (PLANT OPERATION)						
NOSS TITLE	HEALTHCARE LAUNDRY OPERATION						
COMPETENCY UNIT TITLE	LINEN IRONING						
LEARNING OUTCOME	<p>The person who is competent in this competency unit shall be able to ensure the standard and customers can accept quality of ironed linen. Upon completion of this competency unit, trainees will be able to:-</p> <ul style="list-style-type: none"> • Identify linen ironing requirements • Carry out ironing process • Monitor ironing process • Check ironed linen quality 						
PRE- REQUISITE (if applicable)							
COMPETENCY UNIT ID	HT-054-2:2016-C04	LEVEL	2	TRAINING DURATION	160	SKILL CREDIT	16
Work Activities	Related Knowledge	Related Skills	Attitude/Safety/ Environmental		Training Hours	Delivery Mode	Assessment Criteria
1. Identify linen ironing requirements	i. Types and purpose of ironing machine such as: <ul style="list-style-type: none"> • Flatwork ironer • Press ironer • Steam ironer (tunnel finisher) ii. Ironer program parameter: <ul style="list-style-type: none"> • Linen material • Temperature setting • Speed setting (Flatwork ironer, 	i. Determine types of linen ii. Determine linen fabric iii. Determine ironing machine iv. Determine ironing program	<u>Attitude:</u> i. Meticulous in identifying linen ironing requirements <u>Safety:</u> i. Comply with safety requirements		<u>Related Knowledge</u> 5 <u>Related Skills</u> 11	<u>Related Knowledge</u> Lecture / Group Discussion / Video <u>Related Skills</u> Demonstration / Role Play	i. Types of linen and linen fabric listed out and explained ii. Types and purpose of ironing machine listed out and explained iii. Ironer program parameter listed out and explained

Work Activities	Related Knowledge	Related Skills	Attitude/Safety/ Environmental	Training Hours	Delivery Mode	Assessment Criteria
	tunnel finisher) <ul style="list-style-type: none"> Time setting (press ironer) 					
2. Carry out ironing process	<ul style="list-style-type: none"> Purpose of waxing ironer drum Purpose of checking linen quality and condition before ironing 	<ul style="list-style-type: none"> Apply wax according to machine requirements (if necessary) Select ironing program Check linen quality and condition Feed linen into ironer 	<u>Attitude:</u> <ul style="list-style-type: none"> Systematic and well-organized in carrying out ironing process <u>Safety:</u> <ul style="list-style-type: none"> Comply with safety requirements 	<u>Related Knowledge</u> <p>17</p> <u>Related Skills</u> <p>39</p>	<u>Related Knowledge</u> <p>Lecture / Group Discussion / Video</p> <u>Related Skills</u> <p>Demonstration / Role Play</p>	<ul style="list-style-type: none"> Purpose of waxing ironer drum listed out and explained Purpose of checking linen quality and condition before ironing listed out and explained Wax applied according to machine requirements (if necessary) Linen feed into ironer demonstrated

Work Activities	Related Knowledge	Related Skills	Attitude/Safety/ Environmental	Training Hours	Delivery Mode	Assessment Criteria
3. Monitor ironing process	i. Ironer operation monitoring parameters such as: <ul style="list-style-type: none"> • Ironing speed • Temperature ii. Abnormalities in machine operation such as: <ul style="list-style-type: none"> • Abnormal sound • Burning smell • Mechanical defect iii. Procedures in handling abnormalities ironer machine operation	i. Check machine indicator if any abnormalities in operation ii. Determine criticality of abnormalities iii. Handle abnormalities in machine operation according to operation manual iv. Inform superior on abnormalities in operation	<u>Attitude:</u> i. Meticulous in monitoring ironing process <u>Safety:</u> i. Comply with safety requirements	<u>Related Knowledge</u> 17 <u>Related Skills</u> 39	<u>Related Knowledge</u> Lecture / Group Discussion / Video <u>Related Skills</u> Demonstration / Role Play	i. Ironer operation monitoring parameters listed out and explained ii. Abnormalities in machine operation listed out and explained iii. Procedures in handling abnormalities ironer machine operation demonstrated
4. Check ironed linen quality	i. Types of laundry tools and equipment such as: <ul style="list-style-type: none"> • Clean linen trolley ii. Ironing quality standard iii. Ironing reject criteria such as: <ul style="list-style-type: none"> • Crumple • Stain • Burn linen • Wet linen • Dry linen • Odour • Wear and tear iv. Procedures in handling	i. Check ironing results ii. Inform superior on rejected linen condition iii. Segregate and record rejected linen iv. Clean and sanitise ironing area and equipment	<u>Attitude:</u> i. Meticulous in checking ironed linen quality <u>Safety:</u> i. Comply with safety requirements	<u>Related Knowledge</u> 10 <u>Related Skills</u> 22	<u>Related Knowledge</u> Lecture / Group Discussion / Video <u>Related Skills</u> Demonstration / Role Play	i. Types of laundry tools and equipment listed out and explained ii. Ironing quality standard listed out and explained iii. Ironing reject criteria listed out and explained iv. Procedures in handling rejected linen

Work Activities	Related Knowledge	Related Skills	Attitude/Safety/ Environmental	Training Hours	Delivery Mode	Assessment Criteria
	rejected linen <ul style="list-style-type: none"> • Inform superior • Segregate • Re-wash • Mending • Condemn v. Types and purpose of cleaning tools such as: <ul style="list-style-type: none"> • Mop • Sanitizer / disinfectant • Cleaning chemical <ul style="list-style-type: none"> ▪ Dilution 					demonstrated <ul style="list-style-type: none"> v. Types and purpose of cleaning tools listed out and explained vi. Segregating and recording rejected linen demonstrated vii. Cleaning and sanitising ironing area and equipment demonstrated

Employability Skills

Core Abilities	Social Skills
<p>01.01 Identify and gather information. 01.02 Document information procedures or processes. 01.03 Utilize basic IT applications. 02.01 Interpret and follow manuals, instructions and SOP's. 02.03 Communicate clearly. 02.05 Read / Interpret flowcharts and pictorial information. 03.01 Apply cultural requirement to the workplace. 03.02 Demonstrate integrity and apply practical practices. 03.03 Accept responsibility for own work and work area. 03.04 Seek and act constructively upon feedback about work performance. 03.05 Demonstrate safety skills. 03.06 Respond appropriately to people and situations. 06.01 Understand systems. 06.02 Comply with and follow chain of command. 06.03 Identify and highlight problems. 06.04 Adapt competencies to new situations / systems. 01.04 Analyse information. 03.08 Develop and maintain a cooperation within work group. 04.01 Organize own work activities. 04.03 Organize and maintain own workplace. 04.04 Apply problem solving strategies. 04.05 Demonstrate initiative and flexibility. 06.06 Monitor and correct performance of systems.</p>	<ol style="list-style-type: none"> 1. Communication skills 2. Interpersonal skills 3. Learning skills 4. Leadership skills 5. Multitasking and prioritising 6. Self-discipline 7. Teamwork

Tools, Equipment and Materials (TEM)

ITEMS	RATIO (TEM : Trainees)
1. Flatwork ironer	1:25
2. Press ironer	1:25
3. Steam ironer (tunnel finisher)	1:5
4. Ironer program parameter table	1:1
5. Ironing quality standard	1:1
6. Patient uniform	1:5
7. Hospital staff uniform	1:5
8. Ward linen (refer to CA)	1:5
9. Furnishing items (curtain, screen partition, cushion cover, table skirting, etc)	1:5
10. Clean linen trolley	1:5
11. Mop and bucket	1:5
12. Sanitizer / disinfectant chemical	As required
13. MSQH Standard	1:1
14. AS NZS 4146-2000	1:1
15. Joint Commission International (JCI)	1:1
16. Sample of Company's Standard Operating Procedures (SOP)	1:1
17. Sample of Chemical Material Safety Data Sheet (MSDS)	1:1

References

REFERENCES

1. America Standard of Testing and Material, ASTM WK35985 - New Practice for Sustainable Laundry Best Management Practices
2. Australia / New Zealand Standard AS/NZS 4146:2000 - Laundry practice
3. Bobák P (2010) Analysis of Energy Consumption in Professional Laundry Care Process, Chemical Engineering Transactions, vol. 21, 109-114
4. Doug Story (2009), "Lesson Required for the Laundry Business of Tomorrow", ALM Journal, Jan/Feb 2009.
5. Fijan S. (2005), "Implementing Hygiene Monitoring System in Hospital Laundries in Order to Reduce Microbial Contamination of Hospital Textile", Journal of Hospital Infection, Vol. 61 pp. 30-38.
6. Institute for Sustainability and Hygiene International, Certification Standards for Processing Reusable Linen, MacKenzie, Brisbane, Queensland, Australia, April 2011.
7. J.A. Wilson et. al. (2005), "Uniform: An Evidence Review of the Microbiological Significance of Uniform and Uniform Policy in the Prevention and Control of Healthcare-Associated Infection", Journal of Hospital Infection, Vol. 66 pp. 301-307.
8. Kelly M. Pyrek (2011), "Healthcare Textile: Laundry Science and Infection Prevention", Infection Control Today.
9. Krishna Veni (2004), "Laundry and Linen Services in Hospital", Paramedical, Vol. Iv No. 1 Jan-Mar.
10. Nathan L. Belkin (2009), "Laundry, Patient Linen, Textile and Uniform", Text of Infection Control and Epidemiology (3rd Revised Edition).
11. Standards Australia and Standards New Zealand, AS/NZS 4146:2000, Australian/New Zealand Standard – Laundry practice, February 2000.
12. Textile Rental Services Association of America, Guidelines for Healthcare Linen Service-1999, By Joint Committee on Healthcare Laundry Guidelines, Alexandria, VA, 1999.
13. Textile Rental Standard Association (TRSA) Handbook, 2009
14. The Environmental Quality Act 1974
15. The Healthcare Laundry Accreditation Council (HLAC), Healthcare Accreditation Standards for Processing Reusable Textiles for Use in Healthcare Facilities 2011 Edition, Frankfort, IL, June 2011.
16. U.S. Department of Health and Human Services, Centers for Disease Control and Prevention (CDC), Guidelines for Environmental Infection Control in Health-Care Facilities, Recommendations of CDC and the Healthcare Infection Control Practices Advisory Committee (HICPAC), Atlanta, GA, 2003.

CURRICULUM of COMPETENCY UNIT (CoCU)

SECTOR	HOSPITALITY AND TOURISM						
SUB SECTOR	HOUSEKEEPING						
JOB AREA	HEALTHCARE LAUNDRY SERVICES (PLANT OPERATION)						
NOSS TITLE	HEALTHCARE LAUNDRY OPERATION						
COMPETENCY UNIT TITLE	LINEN FOLDING						
LEARNING OUTCOME	<p>The person who is competent in this competency unit shall be able to ensure that linen is neatly and uniformly folded in such a way as to avoid unnecessary wrinkles and creases. Upon completion of this competency unit, trainees will be able to:-</p> <ul style="list-style-type: none"> • Identify linen folding requirements • Carry out folding process • Monitor folding process • Check folded linen quality 						
PRE- REQUISITE (if applicable)							
COMPETENCY UNIT ID	HT-054-2:2016-C05	LEVEL	2	TRAINING DURATION	160	SKILL CREDIT	16
Work Activities	Related Knowledge	Related Skills	Attitude/Safety/ Environmental		Training Hours	Delivery Mode	Assessment Criteria
1. Identify linen folding requirements	i. Folding method <ul style="list-style-type: none"> • Manual • Automatic folding machine ii. Folder program parameter: <ul style="list-style-type: none"> • Linen types • Folding specifications by customer 	i. Determine types of linen ii. Determine folding method iii. Determine folder program	<u>Attitude:</u> i. Meticulous in identifying linen folding requirements <u>Safety:</u> i. Comply with safety requirements		<u>Related Knowledge</u> 5 <u>Related Skills</u> 11	<u>Related Knowledge</u> Lecture / Group Discussion / Video <u>Related Skills</u> Demonstration / Role Play	i. Types of linen listed out and explained ii. Folding method listed out and explained iii. Folder program parameter listed out and explained

Work Activities	Related Knowledge	Related Skills	Attitude/Safety/ Environmental	Training Hours	Delivery Mode	Assessment Criteria
2. Carry out folding process	i. Purpose of checking linen quality and condition before packaging	i. Select folding program ii. Check linen quality and condition iii. Fold linen according to folding specification	<u>Attitude:</u> i. Systematic and well-organized in carrying out folding process <u>Safety:</u> i. Comply with safety requirements	<u>Related Knowledge</u> 17 <u>Related Skills</u> 39	<u>Related Knowledge</u> Lecture / Group Discussion / Video <u>Related Skills</u> Demonstration / Role Play	i. Purpose of checking linen quality and condition before packaging listed out and explained ii. Linen fold demonstrated
3. Monitor folding process	i. Abnormalities in machine operation such as: • Abnormal sound • Mechanical defect ii. Procedures in handling abnormalities folder machine operation	i. Check machine indicator if any abnormalities in operation ii. Determine criticality of abnormalities iii. Handle abnormalities in machine operation according to operation manual iv. Inform superior on abnormalities in operation	<u>Attitude:</u> i. Meticulous in monitoring folding process <u>Safety:</u> i. Comply with safety requirements	<u>Related Knowledge</u> 17 <u>Related Skills</u> 39	<u>Related Knowledge</u> Lecture / Group Discussion / Video <u>Related Skills</u> Demonstration / Role Play	i. Abnormalities in machine operation listed out and explained ii. Procedures in handling abnormalities folder machine operation demonstrated

Work Activities	Related Knowledge	Related Skills	Attitude/Safety/ Environmental	Training Hours	Delivery Mode	Assessment Criteria
4. Check folded linen quality	i. Folding quality standard ii. Folding reject criteria such as: <ul style="list-style-type: none"> • Crumple • Stain • Burn linen • Wet linen • Dry linen • Odour • Wear and tear iii. Procedures in handling rejected linen <ul style="list-style-type: none"> • Inform superior • Segregate • Re-wash • Mending • Condemn iv. Types and purpose of cleaning tools such as: <ul style="list-style-type: none"> • Mop • Sanetizer / disinfectant • Cleaning chemical <ul style="list-style-type: none"> ▪ Dilution 	i. Check folding results ii. Inform superior on rejected linen condition iii. Segregate and record rejected linen iv. Clean and sanitise ironing area and equipment	<u>Attitude:</u> i. Meticulous in checking folded linen quality <u>Safety:</u> i. Comply with safety requirements	<u>Related Knowledge</u> 10 <u>Related Skills</u> 22	<u>Related Knowledge</u> Lecture / Group Discussion / Video <u>Related Skills</u> Demonstration / Role Play	i. Folding quality standard listed out and explained ii. Folding reject criteria listed out and explained iii. Procedures in handling rejected linen demonstrated iv. Types and purpose of cleaning tools listed out and explained v. Segregating and recording rejected linen demonstrated vi. Cleaning and sanitising ironing area and equipment demonstrated

Employability Skills

Core Abilities	Social Skills
<p>01.01 Identify and gather information. 01.02 Document information procedures or processes. 01.03 Utilize basic IT applications. 02.01 Interpret and follow manuals, instructions and SOP's. 02.03 Communicate clearly. 02.05 Read / Interpret flowcharts and pictorial information. 03.01 Apply cultural requirement to the workplace. 03.02 Demonstrate integrity and apply practical practices. 03.03 Accept responsibility for own work and work area. 03.04 Seek and act constructively upon feedback about work performance. 03.05 Demonstrate safety skills. 03.06 Respond appropriately to people and situations. 06.01 Understand systems. 06.02 Comply with and follow chain of command. 06.03 Identify and highlight problems. 06.04 Adapt competencies to new situations / systems. 01.04 Analyse information. 03.08 Develop and maintain a cooperation within work group. 04.01 Organize own work activities. 04.03 Organize and maintain own workplace. 04.04 Apply problem solving strategies. 04.05 Demonstrate initiative and flexibility. 06.06 Monitor and correct performance of systems.</p>	<ol style="list-style-type: none"> 1. Communication skills 2. Interpersonal skills 3. Learning skills 4. Leadership skills 5. Multitasking and prioritising 6. Self-discipline 7. Teamwork

Tools, Equipment and Materials (TEM)

ITEMS	RATIO (TEM : Trainees)
1. Automatic folding machine	1:25
2. Folder program parameter table	1:1
3. Folding quality standard	1:1
4. Patient uniform	1:5
5. Hospital staff uniform	1:5
6. Ward linen (refer to CA)	1:5
7. Furnishing items (curtain, screen partition, cushion cover, table skirting, etc)	1:5
8. Clean linen trolley	1:5
9. Mop and bucket	1:5
10. Sanitizer / disinfectant chemical	As required
11. MSQH Standard	1:1
12. AS NZS 4146-2000	1:1
13. Joint Commission International (JCI)	1:1
14. Sample of Company's Standard Operating Procedures (SOP)	1:1
15. Sample of Chemical Material Safety Data Sheet (MSDS)	1:1

References

REFERENCES

1. America Standard of Testing and Material, ASTM WK35985 - New Practice for Sustainable Laundry Best Management Practices
2. Australia / New Zealand Standard AS/NZS 4146:2000 - Laundry practice
3. Bobák P (2010) Analysis of Energy Consumption in Professional Laundry Care Process, Chemical Engineering Transactions, vol. 21, 109-114
4. Doug Story (2009), "Lesson Required for the Laundry Business of Tomorrow", ALM Journal, Jan/Feb 2009.
5. Fijan S. (2005), "Implementing Hygiene Monitoring System in Hospital Laundries in Order to Reduce Microbial Contamination of Hospital Textile", Journal of Hospital Infection, Vol. 61 pp. 30-38.
6. Institute for Sustainability and Hygiene International, Certification Standards for Processing Reusable Linen, MacKenzie, Brisbane, Queensland, Australia, April 2011.
7. J.A. Wilson et. al. (2005), "Uniform: An Evidence Review of the Microbiological Significance of Uniform and Uniform Policy in the Prevention and Control of Healthcare-Associated Infection", Journal of Hospital Infection, Vol. 66 pp. 301-307.
8. Kelly M. Pyrek (2011), "Healthcare Textile: Laundry Science and Infection Prevention", Infection Control Today.
9. Krishna Veni (2004), "Laundry and Linen Services in Hospital", Paramedical, Vol. Iv No. 1 Jan-Mar.
10. Nathan L. Belkin (2009), "Laundry, Patient Linen, Textile and Uniform", Text of Infection Control and Epidemiology (3rd Revised Edition).
11. Standards Australia and Standards New Zealand, AS/NZS 4146:2000, Australian/New Zealand Standard – Laundry practice, February 2000.
12. Textile Rental Services Association of America, Guidelines for Healthcare Linen Service-1999, By Joint Committee on Healthcare Laundry Guidelines, Alexandria, VA, 1999.
13. Textile Rental Standard Association (TRSA) Handbook, 2009
14. The Environmental Quality Act 1974
15. The Healthcare Laundry Accreditation Council (HLAC), Healthcare Accreditation Standards for Processing Reusable Textiles for Use in Healthcare Facilities 2011 Edition, Frankfort, IL, June 2011.
16. U.S. Department of Health and Human Services, Centers for Disease Control and Prevention (CDC), Guidelines for Environmental Infection Control in Health-Care Facilities, Recommendations of CDC and the Healthcare Infection Control Practices Advisory Committee (HICPAC), Atlanta, GA, 2003.

CURRICULUM of COMPETENCY UNIT (CoCU)

SECTOR	HOSPITALITY AND TOURISM						
SUB SECTOR	HOUSEKEEPING						
JOB AREA	HEALTHCARE LAUNDRY SERVICES (PLANT OPERATION)						
NOSS TITLE	HEALTHCARE LAUNDRY OPERATION						
COMPETENCY UNIT TITLE	LINEN PACKAGING						
LEARNING OUTCOME	<p>The person who is competent in this competency unit shall be able to ensure that customers can accept the standard and quality of packaging in preventing cross contamination. Upon completion of this competency unit, trainees will be able to:-</p> <ul style="list-style-type: none"> • Prepare linen packaging requirements • Carry out packaging process • Carry out package labelling 						
PRE- REQUISITE (if applicable)							
COMPETENCY UNIT ID	HT-054-2:2016-C06	LEVEL	2	TRAINING DURATION	80	SKILL CREDIT	8
Work Activities	Related Knowledge	Related Skills	Attitude/Safety/ Environmental		Training Hours	Delivery Mode	Assessment Criteria
1. Prepare linen packaging requirements	i. Packaging specifications <ul style="list-style-type: none"> • By linen types • By quantity • By customer location ii. Packaging material <ul style="list-style-type: none"> • Wrapping plastic • Sealing materials • Cutting tools • Labelling tools 	i. Determine packaging specifications ii. Arrange packaging materials	<u>Attitude:</u> i. Meticulous in preparing linen packaging requirements <u>Safety:</u> i. Comply with safety requirements		<u>Related Knowledge</u> 5 <u>Related Skills</u> 11	<u>Related Knowledge</u> Lecture / Group Discussion / Video <u>Related Skills</u> Demonstration / Role Play	i. Packaging specifications listed out and explained ii. Packaging materials listed out and explained iii. Arrangement of packaging materials demonstrated

Work Activities	Related Knowledge	Related Skills	Attitude/Safety/ Environmental	Training Hours	Delivery Mode	Assessment Criteria
2. Carry out packaging process	i. Purpose of checking linen quality and condition such as: <ul style="list-style-type: none"> • Crumple • Stain • Burn linen • Wet linen • Odour • Wear and tear ii. Procedures in handling rejected linen <ul style="list-style-type: none"> • Inform superior • Segregate • Re-wash • Mending • Condemn 	i. Check linen quality and condition ii. Inform superior on rejected linen condition iii. Segregate and record rejected linen	<u>Attitude:</u> i. Systematic and well-organized in carrying out packaging process <u>Safety:</u> i. Comply with safety requirements	<u>Related Knowledge</u> 12 <u>Related Skills</u> 28	<u>Related Knowledge</u> Lecture / Group Discussion / Video <u>Related Skills</u> Demonstration / Role Play	i. Purpose of checking linen quality and condition listed out and explained ii. Procedures in handling rejected linen demonstrated iii. Segregating and recording rejected linen demonstrated

Work Activities	Related Knowledge	Related Skills	Attitude/Safety/ Environmental	Training Hours	Delivery Mode	Assessment Criteria
3. Carry out package labelling	i. Packaging quality ii. Purpose of packaging and labelling iii. Purpose of weighing and recording cleaned linen iv. Clean and sanitise packing area and equipment v. Packages loading handling vi. Types and purpose of cleaning tools such as: <ul style="list-style-type: none"> • Mop • Sanitizer / disinfectant • Cleaning chemical <ul style="list-style-type: none"> ▪ Dilution 	i. Check packaging quality ii. Label packages according to packaging specifications iii. Weighing and record cleaned linen iv. Load packages at designated area v. Clean and sanitise packing area and equipment	<u>Attitude:</u> i. Systematic and well-organized in carrying out package labelling <u>Safety:</u> i. Comply with safety requirements	<u>Related Knowledge</u> 7 <u>Related Skills</u> 17	<u>Related Knowledge</u> Lecture / Group Discussion / Video <u>Related Skills</u> Demonstration / Role Play	i. Packaging quality checking demonstrated ii. Purpose of packaging and labelling listed out and explained iii. Purpose of weighing and recording cleaned linen listed out and explained iv. Weighing and recording cleaned linen demonstrated v. Packages loading handling demonstrated vi. Types and purpose of cleaning tools listed out and explained vii. Cleaning and sanitise packing area and equipment demonstrated

Employability Skills

Core Abilities	Social Skills
<p>01.01 Identify and gather information. 01.02 Document information procedures or processes. 01.03 Utilize basic IT applications. 02.01 Interpret and follow manuals, instructions and SOP's. 02.03 Communicate clearly. 02.05 Read / Interpret flowcharts and pictorial information. 03.01 Apply cultural requirement to the workplace. 03.02 Demonstrate integrity and apply practical practices. 03.03 Accept responsibility for own work and work area. 03.04 Seek and act constructively upon feedback about work performance. 03.05 Demonstrate safety skills. 03.06 Respond appropriately to people and situations. 06.01 Understand systems. 06.02 Comply with and follow chain of command. 06.03 Identify and highlight problems. 06.04 Adapt competencies to new situations / systems. 01.04 Analyse information. 03.08 Develop and maintain a cooperation within work group. 04.01 Organize own work activities. 04.03 Organize and maintain own workplace. 04.04 Apply problem solving strategies. 04.05 Demonstrate initiative and flexibility. 06.06 Monitor and correct performance of systems.</p>	<ol style="list-style-type: none"> 1. Communication skills 2. Interpersonal skills 3. Learning skills 4. Leadership skills 5. Multitasking and prioritising 6. Self-discipline 7. Teamwork

Tools, Equipment and Materials (TEM)

ITEMS	RATIO (TEM : Trainees)
1. Wrapping plastic	1:5
2. Sealing materials	1:5
3. Cutting tools	1:5
4. Labelling tools	1:5
5. Patient uniform	1:5
6. Hospital staff uniform	1:5
7. Ward linen (refer to CA)	1:5
8. Furnishing items (curtain, screen partition, cushion cover, table skirting, etc)	1:5
9. Clean linen trolley	1:5
10. Mop and bucket	1:5
11. Sanitizer / disinfectant chemical	As required
12. MSQH Standard	1:1
13. AS NZS 4146-2000	1:1
14. Joint Commission International (JCI)	1:1
15. Sample of Company's Standard Operating Procedures (SOP)	1:1
16. Sample of Chemical Material Safety Data Sheet (MSDS)	1:1

References

REFERENCES

1. America Standard of Testing and Material, ASTM WK35985 - New Practice for Sustainable Laundry Best Management Practices
2. Australia / New Zealand Standard AS/NZS 4146:2000 - Laundry practice
3. Bobák P (2010) Analysis of Energy Consumption in Professional Laundry Care Process, Chemical Engineering Transactions, vol. 21, 109-114
4. Doug Story (2009), "Lesson Required for the Laundry Business of Tomorrow", ALM Journal, Jan/Feb 2009.
5. Fijan S. (2005), "Implementing Hygiene Monitoring System in Hospital Laundries in Order to Reduce Microbial Contamination of Hospital Textile", Journal of Hospital Infection, Vol. 61 pp. 30-38.
6. Institute for Sustainability and Hygiene International, Certification Standards for Processing Reusable Linen, MacKenzie, Brisbane, Queensland, Australia, April 2011.
7. J.A. Wilson et. al. (2005), "Uniform: An Evidence Review of the Microbiological Significance of Uniform and Uniform Policy in the Prevention and Control of Healthcare-Associated Infection", Journal of Hospital Infection, Vol. 66 pp. 301-307.
8. Kelly M. Pyrek (2011), "Healthcare Textile: Laundry Science and Infection Prevention", Infection Control Today.
9. Krishna Veni (2004), "Laundry and Linen Services in Hospital", Paramedical, Vol. Iv No. 1 Jan-Mar.
10. Nathan L. Belkin (2009), "Laundry, Patient Linen, Textile and Uniform", Text of Infection Control and Epidemiology (3rd Revised Edition).
11. Standards Australia and Standards New Zealand, AS/NZS 4146:2000, Australian/New Zealand Standard – Laundry practice, February 2000.
12. Textile Rental Services Association of America, Guidelines for Healthcare Linen Service-1999, By Joint Committee on Healthcare Laundry Guidelines, Alexandria, VA, 1999.
13. Textile Rental Standard Association (TRSA) Handbook, 2009
14. The Environmental Quality Act 1974
15. The Healthcare Laundry Accreditation Council (HLAC), Healthcare Accreditation Standards for Processing Reusable Textiles for Use in Healthcare Facilities 2011 Edition, Frankfort, IL, June 2011.
16. U.S. Department of Health and Human Services, Centers for Disease Control and Prevention (CDC), Guidelines for Environmental Infection Control in Health-Care Facilities, Recommendations of CDC and the Healthcare Infection Control Practices Advisory Committee (HICPAC), Atlanta, GA, 2003.

CURRICULUM of COMPETENCY UNIT (CoCU)

SECTOR	HOSPITALITY AND TOURISM						
SUB SECTOR	HOUSEKEEPING						
JOB AREA	HEALTHCARE LAUNDRY SERVICES (PLANT OPERATION)						
NOSS TITLE	HEALTHCARE LAUNDRY OPERATION						
COMPETENCY UNIT TITLE	LAUNDRY PLANT HOUSEKEEPING						
LEARNING OUTCOME	<p>The person who is competent in this competency unit shall be able to ensure the preservation of workplace / plant from dust and bacteria. Upon completion of this competency unit, trainees will be able to:-</p> <ul style="list-style-type: none"> • Perform washroom hygiene and sanitation • Perform high rise area cleaning • Perform public area cleaning 						
PRE- REQUISITE (if applicable)							
COMPETENCY UNIT ID	HT-054-2:2016-E01	LEVEL	2	TRAINING DURATION	80	SKILL CREDIT	8
Work Activities	Related Knowledge	Related Skills	Attitude/Safety/ Environmental	Training Hours	Delivery Mode	Assessment Criteria	
1. Perform washroom hygiene and sanitation	i. Types of cleaning <ul style="list-style-type: none"> • Spot cleaning • Daily cleaning • Periodic cleaning ii. Types of cleaning tools such as: <ul style="list-style-type: none"> • Hand gloves • Toilet brush • Wiping cloth • Bottle spray • Mirror squeegee • Scouring pad • Scraper • Caddy bucket 	i. Obtain cleaning schedule ii. Determine types of cleaning iii. Determine types of cleaning tools iv. Determine types of cleaning chemical and dosage v. Determine types of covered washing area vi. Determine types of uncovered washing area	<u>Attitude:</u> i. Systematic and well-organized in performing washing hygiene and sanitation <u>Safety:</u> i. Comply with safety requirements	<u>Related Knowledge</u> 7 <u>Related Skills</u> 17	<u>Related Knowledge</u> Lecture / Group Discussion / Video <u>Related Skills</u> Demonstration / Role Play	i. Types of cleaning listed out and explained ii. Types of cleaning tools listed out and explained iii. Types of cleaning chemical and dosage listed out and explained iv. Types of	

Work Activities	Related Knowledge	Related Skills	Attitude/Safety/Environmental	Training Hours	Delivery Mode	Assessment Criteria
	<ul style="list-style-type: none"> • Water suction • Water usher • Air blower • Mop wringer set • Signage <p>iii. Types of cleaning chemical and dosage such as:</p> <ul style="list-style-type: none"> • Multi-purpose • Floor cleaner • Sanitizer / disinfectant • Floor polish • Deodoriser • Hydrochloric • Detergent <p>iv. Types of covered washing area such as:</p> <ul style="list-style-type: none"> • Toilet bowl • Hand bidet • Flushing system • Tissue dispenser • Sanitation disposal • Sanitizer liquid <p>v. Types of uncovered washing area such as:</p> <ul style="list-style-type: none"> • Vanity counter • Tissue compartment • Urinal bowl • Hand dryer • Mirror • Sanitizer liquid • Dustbin 	<p>vii. Determine Personal Protective Equipment (PPE) requirements</p> <p>viii. Check washroom cleaning condition</p> <p>ix. Utilise proper cleaning tools</p> <p>x. Update spot cleaning log sheet</p> <p>xi. Display cleaning signage</p> <p>xii. Utilise proper cleaning tools</p> <p>xiii. Collect rubbish</p> <p>xiv. Spray and wipe washroom wall</p> <p>xv. Spray and wipe washroom fitting and fixtures</p> <p>xvi. Mop and dry washroom floor</p> <p>xvii. Update daily cleaning log sheet</p> <p>xviii. Display cleaning signage</p> <p>xix. Utilise proper cleaning tools</p> <p>xx. Collect rubbish</p> <p>xxi. Scrub washroom wall</p> <p>xxii. Spray and wipe washroom wall</p> <p>xxiii. Dismantle fitting and fixtures</p>				<p>covered washing area listed out and explained</p> <p>v. Types of uncovered washing area listed out and explained</p> <p>vi. Spot cleaning workflow listed out, explained and demonstrated</p> <p>vii. Daily cleaning workflow listed out, explained and demonstrated</p> <p>viii. Periodic cleaning listed out, explained and demonstrated</p>

Work Activities	Related Knowledge	Related Skills	Attitude/Safety/ Environmental	Training Hours	Delivery Mode	Assessment Criteria
	<ul style="list-style-type: none"> • Air freshener • Ventilation fan • Hand gel vi. Spot cleaning workflow <ul style="list-style-type: none"> • Check washroom cleaning condition • Utilise proper cleaning tools • Update spot cleaning log sheet vii. Daily cleaning workflow <ul style="list-style-type: none"> • Display cleaning signage • Utilise proper cleaning tools • Collect rubbish • Spray and wipe washroom wall • Spray and wipe washroom fitting and fixtures • Mop and dry washroom floor • Update daily cleaning log sheet viii. Periodic cleaning workflow <ul style="list-style-type: none"> • Display cleaning signage • Utilise proper cleaning tools • Collect rubbish • Scrub washroom 	xxiv. Spray and wipe washroom fitting and fixtures xxv. Scrub washroom floor xxvi. Mop and dry washroom floor xxvii. Update periodic cleaning log sheet				

Work Activities	Related Knowledge	Related Skills	Attitude/Safety/ Environmental	Training Hours	Delivery Mode	Assessment Criteria
	<ul style="list-style-type: none"> • wall • Spray and wipe washroom wall • Dismantle fitting and fixtures • Spray and wipe washroom fitting and fixtures • Scrub washroom floor • Mop and dry washroom floor • Update periodic cleaning log sheet 					
2. Perform high rise area cleaning	<ul style="list-style-type: none"> i. Types of cleaning tools <ul style="list-style-type: none"> • Mobile ladder • Hand gloves • Face mask • Wiping cloth • Bottle spray • Scraper • Caddy bucket • Air blower • Bag pack vacuum • High dusting brush • Mop wringer set • Signage's ii. High rise area cleaning workflow <ul style="list-style-type: none"> • Display cleaning signage • Utilise proper 	<ul style="list-style-type: none"> i. Obtain cleaning schedule ii. Determine types of cleaning tools iii. Determine Personal Protective Equipment (PPE) requirements iv. Display cleaning signage v. Utilise proper cleaning tools vi. Remove cobweb vii. Spray and wipe glass panes and frame viii. Collect rubbish ix. Vacuum floor area x. Update high rise area cleaning log sheet 	<p><u>Attitude:</u></p> <ul style="list-style-type: none"> i. Systematic and well-organized in performing high rise area cleaning <p><u>Safety:</u></p> <ul style="list-style-type: none"> i. Comply with safety requirements 	<p><u>Related Knowledge</u></p> <p>7</p> <p><u>Related Skills</u></p> <p>17</p>	<p><u>Related Knowledge</u></p> <p>Lecture / Group Discussion / Video</p> <p><u>Related Skills</u></p> <p>Demonstration / Role Play</p>	<ul style="list-style-type: none"> i. Types of cleaning tools listed out and explained ii. High rise area cleaning workflow listed out, explained and demonstrated

Work Activities	Related Knowledge	Related Skills	Attitude/Safety/ Environmental	Training Hours	Delivery Mode	Assessment Criteria
	cleaning tools <ul style="list-style-type: none"> • Remove cobweb • Spray and wipe glass panes and frame • Collect rubbish • Vacuum floor area • Update high rise area cleaning log sheet 					
3. Perform public area cleaning	i. Cleaning area <ul style="list-style-type: none"> • Office area • Store • Cafeteria • Changing area • Rest area ii. Types of cleaning tools <ul style="list-style-type: none"> • Face mask • Wiping cloth • Bottle spray • Scraper • Caddy bucket • Vacuum cleaner • Mop wringer trolley • Signage iii. Public area cleaning workflow <ul style="list-style-type: none"> • Display cleaning signage • Utilise proper cleaning tools • Collect rubbish 	i. Obtain cleaning schedule ii. Determine cleaning area iii. Determine types of cleaning tools iv. Determine Personal Protective Equipment (PPE) requirements v. Display cleaning signage vi. Utilise proper cleaning tools vii. Collect rubbish viii. Spray and wipe furniture and fitting ix. Spray and wipe glass panes and frame x. Clean floor mat xi. Vacuum floor area xii. Replenish consumable items such as xiii. Update public area	<u>Attitude:</u> i. Systematic and well-organized in performing public area cleaning <u>Safety:</u> i. Comply with safety requirements	<u>Related Knowledge</u> 10 <u>Related Skills</u> 22	<u>Related Knowledge</u> Lecture / Group Discussion / Video <u>Related Skills</u> Demonstration / Role Play	i. Cleaning area listed out and explained ii. Types of cleaning tools listed out and explained iii. Public area cleaning workflow listed out, explained and demonstrated

Work Activities	Related Knowledge	Related Skills	Attitude/Safety/ Environmental	Training Hours	Delivery Mode	Assessment Criteria
	<ul style="list-style-type: none"> • Spray and wipe furniture and fitting • Spray and wipe glass panes and frame • Clean floor mat • Vacuum floor area • Replenish consumable items such as <ul style="list-style-type: none"> ▪ Tissue ▪ Air freshener ▪ Hand wash liquid • Update public area cleaning log sheet 	cleaning log sheet				

Employability Skills

Core Abilities	Social Skills
<p>01.01 Identify and gather information. 01.02 Document information procedures or processes. 01.03 Utilize basic IT applications. 02.01 Interpret and follow manuals, instructions and SOP's. 02.03 Communicate clearly. 02.05 Read / Interpret flowcharts and pictorial information. 03.01 Apply cultural requirement to the workplace. 03.02 Demonstrate integrity and apply practical practices. 03.03 Accept responsibility for own work and work area. 03.04 Seek and act constructively upon feedback about work performance. 03.05 Demonstrate safety skills. 03.06 Respond appropriately to people and situations. 06.01 Understand systems. 06.02 Comply with and follow chain of command. 06.03 Identify and highlight problems. 06.04 Adapt competencies to new situations / systems. 01.04 Analyse information. 03.08 Develop and maintain a cooperation within work group. 04.01 Organize own work activities. 04.03 Organize and maintain own workplace. 04.04 Apply problem solving strategies. 04.05 Demonstrate initiative and flexibility. 06.06 Monitor and correct performance of systems.</p>	<ol style="list-style-type: none"> 1. Communication skills 2. Interpersonal skills 3. Learning skills 4. Leadership skills 5. Multitasking and prioritising 6. Self-discipline 7. Teamwork

Tools, Equipment and Materials (TEM)

ITEMS	RATIO (TEM : Trainees)
1. Air blower	1:5
2. Bag pack vacuum	1:5
3. Bottle spray	1:5
4. Caddy bucket	1:5
5. Face mask	1:5
6. Hand glove	1:5
7. High dusting brush	1:5
8. Mirror squeegee	1:5
9. Mobile ladder	1:5
10. Mop wringer set	1:5
11. Scouring pad	1:5
12. Scrapper	1:5
13. Signage's	1:5
14. Toilet brush	1:5
15. Vacuum cleaner	1:5
16. Water suction	1:5
17. Water usher	1:5
18. Wiping cloth	1:5
19. Tissue	1:5
20. Air freshener	1:5
21. Hand wash liquid	1:5
22. Cleaning chemical	As required
23. Sample of cleaning schedule	1:1
24. Sample of Company's Standard Operating Procedures (SOP)	1:1
25. Sample of Chemical Material Safety Data Sheet (MSDS)	1:1

References

REFERENCES

1. America Standard of Testing and Material, ASTM WK35985 - New Practice for Sustainable Laundry Best Management Practices
2. Australia / New Zealand Standard AS/NZS 4146:2000 - Laundry practice
3. Bobák P (2010) Analysis of Energy Consumption in Professional Laundry Care Process, Chemical Engineering Transactions, vol. 21, 109-114
4. Doug Story (2009), "Lesson Required for the Laundry Business of Tomorrow", ALM Journal, Jan/Feb 2009.
5. Fijan S. (2005), "Implementing Hygiene Monitoring System in Hospital Laundries in Order to Reduce Microbial Contamination of Hospital Textile", Journal of Hospital Infection, Vol. 61 pp. 30-38.
6. Institute for Sustainability and Hygiene International, Certification Standards for Processing Reusable Linen, MacKenzie, Brisbane, Queensland, Australia, April 2011.
7. J.A. Wilson et. al. (2005), "Uniform: An Evidence Review of the Microbiological Significance of Uniform and Uniform Policy in the Prevention and Control of Healthcare-Associated Infection", Journal of Hospital Infection, Vol. 66 pp. 301-307.
8. Krishna Veni (2004), "Laundry and Linen Services in Hospital", Paramedical, Vol. Iv No. 1 Jan-Mar.
9. Standards Australia and Standards New Zealand, AS/NZS 4146:2000, Australian/New Zealand Standard – Laundry practice, February 2000.
10. The Environmental Quality Act 1974
11. U.S. Department of Health and Human Services, Centers for Disease Control and Prevention (CDC), Guidelines for Environmental Infection Control in Health-Care Facilities, Recommendations of CDC and the Healthcare Infection Control Practices Advisory Committee (HICPAC), Atlanta, GA, 2003.

SUMMARY OF TRAINING DURATION FOR HEALTHCARE LAUNDRY OPERATION LEVEL 2

CU ID	COMPETENCY UNIT TITLE	WORK ACTIVITIES	RELATED KNOWLEDGE	RELATED SKILLS	HOURS	TOTAL
			(A)	(B)	(A+B)	(HOURS)
HT-054-2:2016-C01	LINEN SEGREGATION	Carry out incoming healthcare linen checking	5	11	16	80
		Carry out soiled linen sorting (except infected linen)	12	28	40	
		Carry out linen tagging / labelling	7	17	24	
HT-054-2:2016-C02	LINEN WASHING	Carry out weighing of soiled linen	5	11	16	160
		Carry out linen washing	17	39	56	
		Monitor washing process	17	39	56	
		Segregate clean linen (only for infected linen)	5	11	16	
		Transfer clean linen to drying area	5	11	16	
HT-054-2:2016-C03	LINEN DRYING	Carry out linen drying	22	50	72	160
		Monitor drying process	22	50	72	
		Transfer clean linen to ironing or folding area	5	11	16	
HT-054-2:2016-C04	LINEN IRONING	Identify linen ironing requirements	5	11	16	160
		Carry out ironing process	17	39	56	
		Monitor ironing process	17	39	56	

CU ID	COMPETENCY UNIT TITLE	WORK ACTIVITIES	RELATED KNOWLEDGE	RELATED SKILLS	HOURS	TOTAL
			(A)	(B)	(A+B)	(HOURS)
		Check ironed linen quality	10	22	32	
HT-054-2:2016-C05	LINEN FOLDING	Identify linen folding requirements	5	11	16	160
		Carry out folding process	17	39	56	
		Monitor folding process	17	39	56	
		Check folded linen quality	10	22	32	
HT-054-2:2016-C06	LINEN PACKAGING	Prepare linen packaging requirements	5	11	16	80
		Carry out packaging process	12	28	40	
		Carry out package labelling	7	17	24	
TOTAL HOURS (Core Competencies)			240	560	800	800
HT-054-2:2016-E01	LAUNDRY PLANT HOUSEKEEPING	Perform washroom hygiene and sanitation	7	17	24	80
		Perform high rise area cleaning	7	17	24	
		Perform public area cleaning	10	22	32	
TOTAL HOURS (Elective Competencies)			24	56	80	80
TOTAL HOURS			264	616	880	880