

STANDARD KEMAHIRAN PEKERJAAN KEBANGSAAN
(NATIONAL OCCUPATIONAL SKILLS STANDARD)

SIGNAGE SUPERVISION
LEVEL 3



JABATAN PEMBANGUNAN KEMAHIRAN
KEMENTERIAN SUMBER MANUSIA, MALAYSIA

SIGNAGE SUPERVISION LEVEL 3

TABLE OF CONTENTS

No.	Contents	Pages
Standard Practice		
1	Introduction	i
2	Occupational Structure	ii - iii
3	Definition Of Competency Level	iv
4	Malaysian Skill Certification	v
5	Job Competencies	v
6	Working Condition	v
7	Employment Prospect	v
8	Sources Of Additional Information	vi
9	Acknowledgement	vi
10	Committee Members For Development Of Standard Practice (SP), Competency Profile Chart (CPC), Competency Profile (CP) And Curriculum Of Competency Unit (CoCU)	vii - x
11	Competency Profile Chart (CPC)	1
12	Competency Profile (CP)	2 - 6
Curriculum of Competency Unit (CoCU)		
1.	Signage Site Survey	7 - 14
2.	Signage Material Preparation	15 - 19
3.	Signage Quality Control	20 - 26
4.	Supervisory Functions	27 - 32
5.	Training Hour Summary	33

STANDARD PRACTICE

NATIONAL OCCUPATIONAL SKILLS STANDARD (NOSS) FOR

SIGNAGE SUPERVISION LEVEL 3

1. INTRODUCTION

This is a revised NOSS for following signage through the new format stipulated by JPK. There is a high demand for skilled personnel in this field as the industry is developing rapidly. Signage is a very important communication tool, to convey information to the receiver, so that they can make cognitive decisions based on the information provided. Signage can be classified into functions such as informative signage, directional signage and identification signage.

Signage personnel work starts from study requirement from the client to the signage installation work at site. The responsibilities include site survey, material preparation, production, quality control and installation. The person who is competent in signage site survey should be able to carry out an inventory for data collection, record details, prepare analysis of data, diagramming input for a conceptual output, conclude all analysis and evaluate data to produce site survey report. The person who is competent in signage material preparation should be able to accomplish time delivery, managing the supply and purchase the material/product in order to provide a material/product for production works according to the clients' requirement and specification. In addition, the person who is competent in signage production should be able to prepare manpower, material & equipment, fabricate signage components, assemble signage components, perform quality checking as well as perform signage packaging and labelling. The person who is competent in signage quality control should be able to review procedure, establish checklist, inspect activities and control defect during and after production and installation to ensure the specification of the product is followed. Besides, they also responsible to conduct testing and commissioning process by establishing checklist according to manufacturers' operation manual. The person who is competent in signage installation should be able to prepare signage installation work information, carry out site preparation, installation and maintenance in accordance with specification.

Signage work is recognised globally and hence there is a need for properly trained personnel at level 2 and 3. Having a competent workforce will renounce Malaysia as a centre of excellence in the region and help towards inward investment in the country. Consequently, the development of this NOSS at Level 2 and 3 (*Refer Figure 1.1 Occupational Structure for Signage Production and Installation*) is essential so that the sub sector will have complete standards and guidelines to be used by the industry.

2. OCCUPATIONAL STRUCTURE

SECTOR	BUILDING AND CONSTRUCTION
SUB SECTOR	ARCHITECTURAL AND BUILDING
LEVEL/ AREA	SIGNAGE PRODUCTION AND INSTALLATION
LEVEL 5	SIGNAGE MANAGER
LEVEL 4	SIGNAGE DESIGNER
LEVEL 3	SIGNAGE SUPERVISOR
LEVEL 2	SIGNAGE FABRICATOR
LEVEL 1	SIGNAGE INSTALLER

Figure 1.1 Occupational Structure for Signage Production And Installation

3. OCCUPATIONAL AREA STRUCTURE

SECTOR	BUILDING AND CONSTRUCTION
SUB SECTOR	ARCHITECTURAL AND BUILDING
LEVEL/ AREA	SIGNAGE PRODUCTION AND INSTALLATION
LEVEL 5	SIGNAGE MANAGEMENT
LEVEL 4	SIGNAGE DESIGNING
LEVEL 3	SIGNAGE SUPERVISION
LEVEL 2	SIGNAGE PRODUCTION AND INSTALLATION
LEVEL 1	-NIL-

Figure 1.2 Occupational Area Structure for Signage Production and Installation

4. DEFINITION OF COMPETENCY LEVEL

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.

Malaysia Skills Certificate Level 1: (Operation and Production Level)	Competent in performing a range of varied work activities, most of which are routine and predictable.
Malaysia Skills Certificate Level 2: (Operation and Production 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 required individual responsibility and autonomy.
Malaysia Skills Certificate 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.
Malaysia Skills Diploma 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.
Malaysia Skills Advanced Diploma 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.

5. MALAYSIAN SKILL CERTIFICATION

Candidates after being assessed verified and fulfilled Malaysian Skill Certification requirements shall be awarded with Sijil Kemahiran Malaysia (SKM) for Level 1, 2 and 3 as for Level 4 and 5 shall be awarded with Diploma Kemahiran Malaysia and Diploma Lanjutan Kemahiran Malaysia respectively.

6. JOB COMPETENCIES

A Signage Supervision Level 3 are competent in performing:

- Signage Site Survey
- Signage Material Preparation
- Signage Quality Control

Optionally Signage Supervision Level 3 are competent in performing the following Elective competencies:-

- Supervisory Function

7. WORKING CONDITIONS

Generally, signage personnel work is according to the work schedule and responsible to meet production and client's requirements. The personnel are also responsible to adhere to workplace standard operating procedure and organization work activities, either in workshops and studios or field works. This covers such matters as creativity, skills, training, communication, presentations, meetings, travel and work-life balance. They may work individually or in an industry with supervision by superior.

Personnel also have the opportunity to develop their career path in other related field in terms of technology innovation in sign making industry and enhance their personal and public relation skills.

8. EMPLOYMENT PROSPECTS

The signage personnel have a high employment prospect whether locally or internationally. This is because the local expertise workforce is recognised by other countries as being highly knowledgeable and skilled in architectural and building industry. This in turn increases the demand for skilled personnel in this field to be employed locally or internationally.

Other related occupations with respect to employment opportunities are:

- Advertising Agency
- Signage Factory
- Media Agency
- Interior Design

Other related industries with respect to employment opportunities are:

- Education
- Training Centres
- Lecturers
- Facilitators

9. SOURCES OF ADDITIONAL INFORMATION

1. Road Engineering Association of Malaysia

No 46A, Jalan Bola Tampar 13/14,
Section 13,
40100 Shah Alam,
Selangor.

Tel : 03 – 5513 6521/6522
Fax : 03 – 5513 6523
Email : ream@po.jaring.my
Laman Web : <http://www.ream.org.my>

2. Malaysian Digital Signage Association

No 97-2A, Jalan TKS 1,
Taman Kajang Sentral,
43000 Kajang, Selangor.

Tel : 03 – 8739 9510
Fax : 03 – 2178 4646
Email : info@digitalsignageassociation.org.my
Laman Web : <http://www.digitalsignageassociation.org.my>

3. Lembaga Piawaian Pengiklanan Malaysia

Unit 706, Blok B,
Pusat Dagangan Phileo Damansara 1,
9, Jalan 16/11, Off Jalan Damansara,
46350 Petaling Jaya, Selangor.

Tel : 03 – 7660 8535
Fax : 03 – 7660 8532
Email : asa@macomm.com.my
Laman Web : <http://www.asa.org.my>

10. APPROVAL DATE

The National Skills Development Board (MPKK), Ministry of Human Resources has agreed and endorsed this Standard on

11. 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.

**12. COMMITTEE MEMBERS FOR PHASE 1 NOSS SIGNAGE PRODUCTION &
INSTALLATION LEVEL 2 AND SIGNAGE SUPERVISION LEVEL 3**

PANEL		
1.	En Mohd Shamsudin bin Mohd Nordin	Pengarah Tempinas Sdn Bhd
2.	Mr Chew Choon Yau	Director YPE Signcraft Cdn Bhd
3.	Ms Ong Hooi Phaik	Admin Executive YPE Signcraft Cdn Bhd
4.	Pn Faizah binti Wahid	QA/QC Executive Zelan Construction Sdn Bhd
5.	Pn. Noriha binti Derin	Director Lembaga Lebuhraya Malaysia
6.	Dr Masria Mustafa	Lecturer Universiti Teknologi MARA
7.	En Md Ahir bin Abu Hasan	Managing Director Suria Insan Sdn Bhd
8.	Mr Yong Wai Lek	Project Executive Media Signs Sdn Bhd
9.	En Ismail Md Isa	Managing Director S&I Urban Designers Sdn Bhd
10.	Pn. Zurina binti Aris	Project Consulting Manager S&I Urban Designers Sdn Bhd
11.	En Ahmad Kamal bin Abudin	Engineer Projek Lebuhraya Usahasama Berhad
12.	En Mohd Ismadi Nasri bin Mhamat Nasudin	Technical Executive Projek Lebuhraya Usahasama Berhad
13.	En Zaharin bin Ibrahim	Senior Technical Executive Projek Lebuhraya Usahasama Berhad
14.	En Mohd Sukhairul Azrai bin Sukiman	Designer AZ Ideal Inspiration Sdn Bhd
FACILITATOR		
15.	Pn. Siti Rohanah Binti Ahmad	CIDB

13. COMMITTEE MEMBERS FOR PHASE 2 NOSS SIGNAGE PRODUCTION & INSTALLATION LEVEL 2 AND SIGNAGE SUPERVISION LEVEL 3

PANEL		
1.	En Mohd Shamsudin bin Mohd Nordin	Pengarah Tempinas Sdn Bhd
2.	Mr Chew Choon Yau	Director YPE Signcraft Cdn Bhd
3.	Ms Ong Hooi Phaik	Admin Executive YPE Signcraft Cdn Bhd
4.	Pn Faizah binti Wahid	QA/QC Executive Zelan Construction Sdn Bhd
5.	Pn. Noriha binti Derin	Director Lembaga Lebuhraya Malaysia
6.	Dr Masria Mustafa	Lecturer Universiti Teknologi MARA
7.	En Md Ahir bin Abu Hasan	Managing Director Suria Insan Sdn Bhd
8.	Mr Yong Wai Lek	Project Executive Media Signs Sdn Bhd
9.	En Ismail Md Isa	Managing Director S&I Urban Designers Sdn Bhd
10.	Pn. Zurina binti Aris	Project Consulting Manager S&I Urban Designers Sdn Bhd
11.	En Ahmad Kamal bin Abudin	Engineer Projek Lebuhraya Usahasama Berhad
12.	En Mohd Ismadi Nasri bin Mhamat Nasudin	Technical Executive Projek Lebuhraya Usahasama Berhad
13.	En Zaharin bin Ibrahim	Senior Technical Executive Projek Lebuhraya Usahasama Berhad
14.	En Mohd Sukhairul Azrai bin Sukiman	Designer AZ Ideal Inspiration Sdn Bhd
FACILITATOR		
15.	Pn. Siti Rohanah Binti Ahmad	CIDB

14. COMMITTEE MEMBERS FOR PHASE 3 NOSS SIGNAGE PRODUCTION & INSTALLATION LEVEL 2 AND SIGNAGE SUPERVISION LEVEL 3

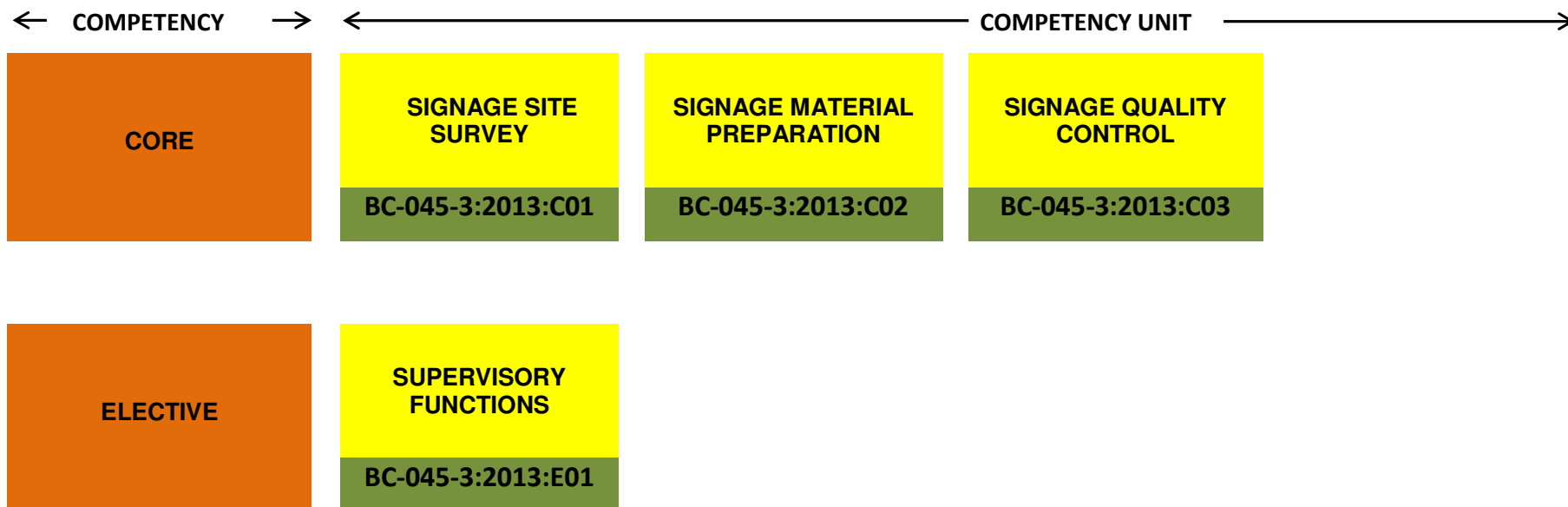
PANEL		
1.	En Mohd Shamsudin bin Mohd Nordin	Pengarah Tempinas Sdn Bhd
2.	Mr Chew Choon Yau	Director YPE Signcraft Cdn Bhd
3.	Ms Ong Hooi Phaik	Admin Executive YPE Signcraft Cdn Bhd
4.	Pn Faizah binti Wahid	QA/QC Executive Zelan Construction Sdn Bhd
5.	Pn. Noriha binti Derin	Director Lembaga Lebuhraya Malaysia
6.	Dr Masria Mustafa	Lecturer Universiti Teknologi MARA
7.	En Md Ahir bin Abu Hasan	Managing Director Suria Insan Sdn Bhd
8.	Mr Yong Wai Lek	Project Executive Media Signs Sdn Bhd
9.	En Ismail Md Isa	Managing Director S&I Urban Designers Sdn Bhd
10.	Pn. Zurina binti Aris	Project Consulting Manager S&I Urban Designers Sdn Bhd
11.	En Ahmad Kamal bin Abudin	Engineer Projek Lebuhraya Usahasama Berhad
12.	En Mohd Ismadi Nasri bin Mhamat Nasudin	Technical Executive Projek Lebuhraya Usahasama Berhad
13.	En Zaharin bin Ibrahim	Senior Technical Executive Projek Lebuhraya Usahasama Berhad
14.	En Mohd Sukhairul Azrai bin Sukiman	Designer AZ Ideal Inspiration Sdn Bhd
FACILITATOR		
15.	Pn. Siti Rohanah Binti Ahmad	CIDB

15. COMMITTEE MEMBERS FOR PHASE 4 NOSS SIGNAGE PRODUCTION & INSTALLATION LEVEL 2 AND SIGNAGE SUPERVISION LEVEL 3

PANEL		
1.	En Mohd Shamsudin bin Mohd Nordin	Pengarah Tempinas Sdn Bhd
2.	Mr Chew Choon Yau	Director YPE Signcraft Cdn Bhd
3.	Ms Ong Hooi Phaik	Admin Executive YPE Signcraft Cdn Bhd
4.	Pn Faizah binti Wahid	QA/QC Executive Zelan Construction Sdn Bhd
5.	Pn. Noriha binti Derin	Director Lembaga Lebuhraya Malaysia
6.	Dr Masria Mustafa	Lecturer Universiti Teknologi MARA
7.	En Md Ahir bin Abu Hasan	Managing Director Suria Insan Sdn Bhd
8.	Mr Yong Wai Lek	Project Executive Media Signs Sdn Bhd
9.	En Ismail Md Isa	Managing Director S&I Urban Designers Sdn Bhd
10.	Pn. Zurina binti Aris	Project Consulting Manager S&I Urban Designers Sdn Bhd
11.	En Ahmad Kamal bin Abudin	Engineer Projek Lebuhraya Usahasama Berhad
12.	En Mohd Ismadi Nasri bin Mhamat Nasudin	Technical Executive Projek Lebuhraya Usahasama Berhad
13.	En Zaharin bin Ibrahim	Senior Technical Executive Projek Lebuhraya Usahasama Berhad
14.	En Mohd Sukhairul Azrai bin Sukiman	Designer AZ Ideal Inspiration Sdn Bhd
FACILITATOR		
15.	Pn. Siti Rohanah Binti Ahmad	CIDB

JOB PROFILE CHART (JPC)

SECTOR	BUILDING AND CONSTRUCTION		
SUB SECTOR	ARCHITECTURAL AND BUILDING		
JOB AREA	SIGNAGE PRODUCTION AND INSTALLATION		
NOSS TITLE	SIGNAGE SUPERVISION		
JOB LEVEL	THREE (3)	JOB AREA CODE	BC-045-3:2013



COMPETENCY PROFILE (CP)

Sub Sector	ARCHITECTURAL AND BUILDING
Job Area	SIGNAGE SUPERVISION AND INSTALLATION
NOSS Title	SIGNAGE SUPERVISION
Level	THREE (3)

CU Title	CU Code	CU Descriptor	CU Work Activities	Performance Criteria
1. Signage Site Survey	BC-045-2:2013:C01	<p>This competency unit describes the skills, knowledge and attitude requirements in signage site survey.</p> <p>An inspection on an area where work is proposed, to gather information for a design or an estimate to complete the initial task required for the activity. It can determine a precise location, access, best orientation for site and the location of obstacle. Carry out an inventory for data collection, record details, prepare analysis of data, diagramming input for a conceptual output, conclude all analyzed and evaluation data to produce site survey report.</p> <p>The person who is competent in signage site survey shall be able to:- Prepare site survey information, carry out site investigation and produce site survey report, in</p>	<p>1. Prepare site survey information</p> <p>2. Carry out site investigation.</p>	<p>1.1 Signage brief, blueprint & client requirement obtained.</p> <p>1.2 Layout plan & detail drawings analysed.</p> <p>1.3 Site locality & functionality studied.</p> <p>1.4 Site condition, constraint and signage orientation reviewed.</p> <p>1.5 Data findings evaluated.</p> <p>1.6 Data findings compiled.</p> <p>2.1 Equipment and tools to carry out site survey prepared.</p> <p>2.2 Detail information from site location identified.</p> <p>2.3 Signage placement, quantity, traffic flow, road alignment, site availability & site constraint investigated.</p> <p>2.4 Site condition data & photos recorded.</p>

COMPETENCY PROFILE (CP)

CU Title	CU Code	CU Descriptor	CU Work Activities	Performance Criteria
		accordance with organization, authority and clients' requirements and standard practices.	3. Produce site survey report.	<p>3.1 Signage placement, quantity, traffic flow, road alignment, site availability & site constraint information data collated.</p> <p>3.2 Reviewed data validated.</p> <p>3.3 Data findings e.g. signage placement & alignment, signage contents, proposed materials and quantities summarized.</p> <p>3.4 Final report and over plan marking produced.</p> <p>3.5 Report submitted for approval.</p>

COMPETENCY PROFILE (CP)

CU Title	CU Code	CU Descriptor	CU Work Activities	Performance Criteria
2. Signage Material Preparation	BC-045-2:2013:C02	<p>This competency unit describes the skills, knowledge and attitude requirements in signage material preparation.</p> <p>The process where all the materials needed for the fabrication are collated, sorted and approved for use. Preparation is an essential aspect of fabricating and it is a must that all materials are well prepared before the fabrication of signages are commenced.</p> <p>The person who is competent in signage material preparation shall be able to Prepare material/product information and material/product quantity in accordance with client's requirements and standard.</p>	<p>1. Prepare material/product information.</p> <p>2. Prepare material/product quantity.</p>	<p>1.1 Sign type function identified</p> <p>1.2 Specification of signage materials/product including brochures collected.</p> <p>1.3 Material/product compliance with client's requirement selected.</p> <p>1.4 The best quality for each material/product evaluated.</p> <p>1.5 Material/product submitted for approval.</p> <p>2.1 Quantity calculated based on BQ and drawing.</p> <p>2.2 Current stock inventory checked.</p> <p>2.3 Stock inventory updated.</p> <p>2.4 Purchase request for material quantity issued to purchasing department.</p>

COMPETENCY PROFILE (CP)

CU Title	CU Code	CU Descriptor	CU Work Activities	Performance Criteria
3. Signage Quality Control	BC-045-2:2013:C03	<p>This competency unit describes the skills, knowledge and attitude requirements in signage quality control.</p> <p>The process which reviews the quality of all factors involve in fabrication and installation activities so that the quality requirement for a product will be fulfilled.</p> <p>The person who is competent in signage quality control shall be able to conduct fabrication quality control, installation quality control and testing & commissioning process in accordance with client's requirements and standard.</p>	<p>1. Conduct Fabrication Quality Control</p> <p>2. Conduct Installation Quality Control</p> <p>3. Conduct Testing and Commissioning Process</p>	<p>1.1 Fabrication procedure reviewed.</p> <p>1.2 Fabrication work checklist established.</p> <p>1.3 Fabrication defects controlled.</p> <p>1.4 Finished product inspected.</p> <p>1.5 Fabrication quality report submitted.</p> <p>2.1 Installation procedure reviewed.</p> <p>2.2 Installation work checklist established.</p> <p>2.3 Installation defects controlled.</p> <p>2.4 Installed product inspected.</p> <p>2.5 Installation quality report submitted.</p> <p>3.1 Commissioning checklist established.</p> <p>3.2 Manufacturers operation manual obtained.</p> <p>3.3 Carried out field inspection, testing & commissioning.</p> <p>3.4 Testing result submitted.</p>

COMPETENCY PROFILE (CP)

CU Title	CU Code	CU Descriptor	CU Work Activities	Performance Criteria
4. Supervisory Functions	BC-045-2:2013:E01	<p>This competency unit describes the skills, knowledge and attitude requirements in supervisory functions.</p> <p>The process where planning of work between sections are coordinated.</p> <p>The person who is competent in supervisory functions shall be able to conduct section meeting, plan work programme and coordinate work/activities</p>	<p>1. Conduct section meeting.</p> <p>2. Plan work programme</p> <p>3. Coordinate work/activities</p>	<p>1.1 Meeting schedule and agenda are prepared.</p> <p>1.2 Target group informed.</p> <p>1.3 Previous minutes confirmed.</p> <p>1.4 Minute of meeting are recorded and distributed.</p> <p>2.1 Work flow is established</p> <p>2.2 Manpower selected</p> <p>2.3 Machineries/ tools arranged</p> <p>2.4 Work programme generated</p> <p>3.1 Work activities identified</p> <p>3.2 Work activities organized</p> <p>3.3 Work activities assigned</p>

CURRICULUM of COMPETENCY UNIT (CoCU)

Sub Sector	ARCHITECTURAL AND BUILDING						
Job Area	SIGNAGE PRODUCTION AND INSTALLATION						
NOSS Title	SIGNAGE SUPERVISION						
Competency Unit Title	SIGNAGE SITE SURVEY						
Learning Outcome	The person who is competent in this CU shall be able to describes the skills, knowledge and attitude requirements in signage site survey. Upon completion of this competency unit, trainees will be able to: - <ul style="list-style-type: none">• Prepare site survey information• Carry out site investigation• Produce site survey report						
Competency Unit ID	BC-045-3:2013:C01	Level	3	Training Duration	200 Hours	Credit Hours	20
Work Activities	Related Knowledge	Related Skills	Attitude/Safety/Environmental	Training Hours	Delivery Mode	Assessment Criteria	
1. Prepare site survey information	i. Signage detail requirements: <ul style="list-style-type: none">• Sign type• Illumination• Site location• Quantity• Material• Size/measurement• Authority policy and acts• Ability to communicate verbal/non-verbal with clients ii. Drawings (blue print) extraction and retrieval iii. Site survey signage planning: <ul style="list-style-type: none">• Series/family of signs			22	Lecture	i. Clients collected and gathered ii. Clients blue print extracted iii. Over plan marking marked, signage location identified iv. Working area, site conditions, constraints & obstructions, signage orientation and machineries determined v. Site	

Work Activities	Related Knowledge	Related Skills	Attitude/Safety/ Environmental	Training Hours	Delivery Mode	Assessment Criteria
	<ul style="list-style-type: none"> • Sequence iv. Identify site requirements <ul style="list-style-type: none"> • Working area • Site obstruction • Signage placement & orientation • Authority/company/ government requirements/code of ethics • Type of machineries needed v. Knowledge in assessing and evaluating information vi. Efficiency to organise documents <ul style="list-style-type: none"> • Sort • Label file • Hard & soft copy 					requirements and drawings assessed vi. Data findings gathered and filed
		i. Obtain client information ii. Analyse blue print data iii. Study signage location and functionality iv. Review site requirements v. Evaluate data findings vi. Compile data findings	<u>Attitude:</u> i. Accurate in selecting particular	60	Demonstration and observation	

Work Activities	Related Knowledge	Related Skills	Attitude/Safety/ Environmental	Training Hours	Delivery Mode	Assessment Criteria
			document ii. Communication skills iii. Analytical in obtaining information iv. Knowledgeable in interpreting clients' requirements			
2. Carry out site investigation	i. Site survey requirements: <ul style="list-style-type: none"> • Work checklist • Location/proposed area site photos • Work area measurement • Drawings (blue print) • Safety equipment ii. Knowledge to perform area identification: <ul style="list-style-type: none"> • Accept responsibility for work area iii. Ability to analyse site conditions: <ul style="list-style-type: none"> • Proper measuring tools/equipment • Photo taking technique • Logical/rational interpretation • Basic hand 			24	Lecture	i. Site visit equipment prepared and compiled ii. Working area verified and identified iii. Site conditions obtained and inspected iv. All site information and details documented and filed

Work Activities	Related Knowledge	Related Skills	Attitude/Safety/ Environmental	Training Hours	Delivery Mode	Assessment Criteria
	sketches <ul style="list-style-type: none"> • Site constraints/problems • Actual site measurement • Site photos iv. Administration of all gathered information					
		i. Prepare survey equipment ii. Identify working area iii. Investigate site condition iv. Record site information	<u>Attitude</u> <ul style="list-style-type: none"> i. Knowledgeable in preparing for site activity ii. Firm in decision making iii. Systematic in investigation iv. Detailed in recording site data <u>Safety</u> <ul style="list-style-type: none"> i. Adhere to all standard safety practice and procedure ii. Rules and regulations at the site/working area 	50	Demonstration and observation	

Work Activities	Related Knowledge	Related Skills	Attitude/Safety/ Environmental	Training Hours	Delivery Mode	Assessment Criteria
			<u>Environment</u> i. Ensure good site housekeeping			
3. Produce site survey report	i. Ability to produce site report: <ul style="list-style-type: none"> • Identify, accumulate and coordinate information • Select, define and manage data • Problems/ constraints on site resolved • Adhere to authority/clients rules and regulations • Suitable information and machineries/ equipments • Filter relevant data • Systematic report contents ii. Organise appropriate documentation: <ul style="list-style-type: none"> • Report writing skills • Computer literacy • Filing system 			16	Lecture	i. Survey information gathered and collated ii. Site survey data analysed and recorded iii. Data findings summarised iv. Contents accurately reported and finalised v. Site survey report produced vi. Report submitted and verified
		i. Collate survey information ii. Analyse site survey		28	Observation	

Work Activities	Related Knowledge	Related Skills	Attitude/Safety/ Environmental	Training Hours	Delivery Mode	Assessment Criteria
		data iii. Summarise data findings iv. Finalise report contents v. Produce site survey report vi. Submit report for approval	<u>Attitude</u> i. Accurate in reviewing contents ii. Precise in data analysis iii. Systematic in recording and compiling iv. Meticulous in report writing v. Efficient in applying computer skills <u>Environment</u> i. Control usage of materials/ stationery			

Employability Skills

Core Abilities	Social Skills
01.07 Utilise database applications to locate and process information 01.08 Utilise spreadsheets applications to locate and process information 01.10 Apply a variety of mathematical techniques 01.11 Apply thinking skills and creativity 02.10 Prepare reports and instructions 02.11 Convey information and ideas to people 03.14 Facilitate and coordinate teams and ideas 03.15 Liaise to achieve identified outcomes 03.16 Identify and assess client/customer needs 04.06 Allocate work 05.01 Implement project/work plans 05.02 Develop and maintain networks	1. Communication skills 2. Conceptual skills 3. Interpersonal skills 4. Learning skills 5. Leadership skills 6. Multitasking and prioritising 7. Self-discipline 8. Teamwork

Tools, Equipment and Materials (TEM)

ITEMS	RATIO (TEM : Trainees)
1. Stationery 2. Camera 3. Computer & peripherals 4. Software –AutoCAD, Microsoft 5. Measuring tools 6. Safety equipment (Protective Personal Equipment) 7. Authority manual & guidelines	As per required 1:5 1:1 1:1 1:4 1:1 1:5

References

REFERENCES
<ol style="list-style-type: none">1. Road Signage2. Billboard3. Advertisement4. Building signage5. Lighted signages6. The Easy Massage Work Book, Clare Harris, 2006, ISBN –978-84483-882-07. Traditional and Complementary Medicine, Practice Guidelines on Malay Massage, 2007, ISBN –983-44754-4-48. The Complete Illustrated Guide to Massage, Steward Mitchell, 1997, ISBN –1- 85230-990-39. Professional Beauty Therapy Level 3, Lorraine Nordmann, 2007, ISBN –978-1-84480-696-610. Beauty Basics Level 1, Lorraine Nordmann, 2007, ISBN –978-1-84480-694-211. Sport Massage, Tim Paine, 2000, ISBN –0-71365007-912. Fibromyalgia & Chronic, Myofascial Pain, Devin starlanly and Mary Ellen Copeland, 2001, ISBN –1- 57224-238-813. Berurut Untuk Pemulihan Urat Saraf, Amran Kasimin Dan Abdullah Seman, 1995, ISBN –983-9601-95-414. Good Practice Guideline on full body massage, Tradiditional dan Komplementeri,Kementerian Kesihatan, Malaysia, 2011, ISBN –978-98344754-9-9

CURRICULUM of COMPETENCY UNIT (CoCU)

Sub Sector	ARCHITECTURAL AND BUILDING						
Job Area	SIGNAGE PRODUCTION AND INSTALLATION						
NOSS Title	SIGNAGE SUPERVISION						
Competency Unit Title	SIGNAGE MATERIAL PREPARATION						
Learning Outcome	The person who is competent in this CU shall be able to describe the skills, knowledge and attitude requirements in signage material preparation. Upon completion of this competency unit, trainees will be able to: - <ul style="list-style-type: none">• Prepare material/product information• Prepare material/product quantity						
Competency Unit ID	BC-045-3:2013:C02	Level	3	Training Duration	200 Hours	Credit Hours	20
Work Activities	Related Knowledge	Related Skills		Attitude/Safety/Environmental	Training Hours	Delivery Mode	Assessment Criteria
1. Prepare material/product information	<div>i. Types and functions of signage:<ul style="list-style-type: none">• Billboard• Road signage• Illuminated signs on• Building signage• Internal architectural sign system• External architectural sign system• Advertising/promotion/display panel</div> <div>ii. Main material/product component specifications<ul style="list-style-type: none">• sign face• structure</div>				32	Lecture	<div>i. Sign type function and components identified</div> <div>ii. Material /product specifications collected and gathered</div> <div>iii. Material/product determined and selected</div> <div>iv. Material/product reviewed, analysed and assessed</div> <div>v. Material/product verified and endorsed</div>

Work Activities	Related Knowledge	Related Skills	Attitude/Safety/ Environmental	Training Hours	Delivery Mode	Assessment Criteria
	<ul style="list-style-type: none"> • sign frame • footing iii. Quality of material/product <ul style="list-style-type: none"> • Warranty/durability • Testing iv. Sample material/product approval and documentation					
		i. Identify sign type function ii. Collect material/product specifications iii. Select required material/product iv. Evaluate selected material/product v. Submit material/product for approval	<u>Attitude:</u> i. Precise in sourcing document ii. Accurate in selecting particular documents iii. Factual in determining specifications iv. Ensure suitability	72	Demonstration and observation	

Work Activities	Related Knowledge	Related Skills	Attitude/Safety/ Environmental	Training Hours	Delivery Mode	Assessment Criteria
			of material/ product v. Knowledgeable in products			
2. Prepare material/ product quantity	i. Material/product quantify ii. Material/product stock iii. Material/product stock inventory iv. Material/product purchasing			24	Lecture	i. Material/ product quantity required calculated ii. Current stock balance inspected and checked
		i. Calculate material/product quantity ii. Check current material/product stock iii. Update material/product stock inventory iv. Issue material/product purchase request	<u>Attitude</u> i. Responsible in recording purchased item ii. Efficient and accurate in calculation iii. Responsible in purchasing products suitable for operation	72	Demonstration and observation	iii. Stock inventory secured and updated iv. Purchase material requisition issued

Employability Skills

Core Abilities	Social Skills
01.07 Utilise database applications to locate and process information 01.08 Utilise spreadsheets applications to locate and process information 01.10 Apply a variety of mathematical techniques 01.11 Apply thinking skills and creativity 02.10 Prepare reports and instructions 02.11 Convey information and ideas to people 03.14 Facilitate and coordinate teams and ideas 03.15 Liaise to achieve identified outcomes 03.16 Identify and assess client/customer needs 04.06 Allocate work 05.01 Implement project/work plans 05.02 Develop and maintain networks	1. Communication skills 2. Conceptual skills 3. Interpersonal skills 4. Learning skills 5. Leadership skills 6. Multitasking and prioritising 7. Self-discipline 8. Teamwork

Tools, Equipment and Materials (TEM)

ITEMS	RATIO (TEM : Trainees)
1. Stationery 2. Computer & peripherals 3. Software –AutoCAD, Microsoft 4. Authority manual & guidelines	As per required 1:1 1:1 1:5

References

REFERENCES

1. The Easy Massage Work Book, Clare Harris, 2006, ISBN –978-84483-882-0
2. Traditional and Complementary Medicine, Practice Guidelines on Malay Massage, 2007, ISBN –983-44754-4-4
3. The Complete Illustrated Guide to Massage, Steward Mitchell, 1997, ISBN –1- 85230-990-3
4. Professional Beauty Therapy Level 3, Lorraine Nordmann, 2007, ISBN –978-1-84480-696-6
5. Beauty Basics Level 1, Lorraine Nordmann, 2007, ISBN –978-1-84480-694-2
6. Sport Massage, Tim Paine, 2000, ISBN –0-71365007-9
7. Fibromyalgia & Chronic, Myofascial Pain, Devin starlanly and Mary Ellen Copeland, 2001, ISBN –1- 57224-238-8
8. Berurut Untuk Pemulihan Urat Saraf, Amran Kasimin Dan Abdullah Seman, 1995, ISBN –983-9601-95-4
9. Good Practice Guideline on full body massage, Tradiditional dan Komplementeri Kementerian Kesihatan, Malaysia, 2011, ISBN –978-98344754-9-9

CURRICULUM of COMPETENCY UNIT (CoCU)

Sub Sector		ARCHITECTURAL AND BUILDING						
Job Area		SIGNAGE PRODUCTION AND INSTALLATION						
NOSS Title		SIGNAGE SUPERVISION						
Competency Unit Title		SIGNAGE QUALITY CONTROL						
Learning Outcome		The person who is competent in this CU shall be able to describe the skills, knowledge and attitude requirements in signage quality control. Upon completion of this competency unit, trainees will be able to: - <ul style="list-style-type: none">• Conduct fabrication quality control• Conduct installation quality control• Conduct testing and commissioning process						
Competency Unit ID		BC-045-3:2013:C03	Level	3	Training Duration	320 Hours	Credit Hours	32
Work Activities	Related Knowledge	Related Skills		Attitude/Safety/Environmental		Training Hours	Delivery Mode	Assessment Criteria
1. Conduct fabrication quality control	i. Determining and assessing fabrication procedure and workflow ii. Product quality and standard <ul style="list-style-type: none">• Organisation' standard practice and procedure• Product requirements & specifications• Methods and techniques of inspection iii. Product quality report documentation					24	Lecture	i. Fabrication procedure examined and adhered ii. Fabrication work checklist established and produced iii. Fabrication defects monitored, verified and managed iv. Finished product inspected and validated
		i. Review fabrication procedure ii. Establish fabrication				72	Demonstration and observation	v. Fabrication quality report recorded and submitted

Work Activities	Related Knowledge	Related Skills	Attitude/Safety/ Environmental	Training Hours	Delivery Mode	Assessment Criteria
		work checklist iii. Control fabrication defects iv. Inspect finished product v. Submit fabrication quality report	<u>Attitude:</u> i. Integrity in giving evaluation ii. Competent in conducting quality assessment iii. Confident and motivated <u>Safety:</u> i. Adhere to all standard safety practice and procedures ii. Rules and regulation at working area <u>Environment:</u> i. Maintain good housekeeping ii. Control wastage of materials			
2. Conduct installation quality control	i. Determining and assessing installation process ii. Installation quality and standard			32	Lecture	i. Installation procedure examined and adhered to ii. Installation

Work Activities	Related Knowledge	Related Skills	Attitude/Safety/ Environmental	Training Hours	Delivery Mode	Assessment Criteria
	<ul style="list-style-type: none"> • Clients' practice and procedure • Installation requirements & specifications • Methods and techniques of inspection iii. Installation quality report documentation					work checklist established and produced iii. Installation defects monitored, verified and managed iv. Finished product inspected and validated v. Installation quality report recorded and submitted
		i. Review installation procedure ii. Establish installation work checklist iii. Control installation defects iv. Inspect installed product v. Submit installation quality report	<u>Attitude:</u> i. Integrity in giving evaluation ii. Competent in conducting quality assessment iii. Confident and motivated <u>Safety:</u> i. Adhere to all standard safety practice and procedures	90	Demonstration and observation	

Work Activities	Related Knowledge	Related Skills	Attitude/Safety/ Environmental	Training Hours	Delivery Mode	Assessment Criteria
			ii. Rules and regulation at working area <u>Environment:</u> i. Maintain good housekeeping ii. Control wastage of materials			
3. Conduct testing and commissioning process	i. Technique, procedure and workflow assessment ii. Product quality and standard compliance <ul style="list-style-type: none"> • Product requirement & specification • Methods and techniques of inspection iii. Field inspection, testing & commissioning iv. Test result documentation			26	Lecture	i. Commissioning checklist checked and updated ii. Manufacturers operation manual applied iii. Field inspection, testing & commissioning executed iv. Test results produced
		i. Establish commissioning checklist ii. Obtain manufacturers operation manual iii. Carry out field inspection, testing & commissioning iv. Submit testing result		76	Demonstration and observation	

Work Activities	Related Knowledge	Related Skills	Attitude/Safety/ Environmental	Training Hours	Delivery Mode	Assessment Criteria
			<u>Attitude:</u> i. Factual in determining guideline manual ii. Efficient in controlling target checklist iii. Ensure quality control summary report is filled out thoroughly iv. Adhere to SOP <u>Safety:</u> i. Adhere to all standard safety practice and procedures <u>Environment:</u> i. Maintain good housekeeping			

Employability Skills

Core Abilities	Social Skills
01.07 Utilise database applications to locate and process information 01.08 Utilise spreadsheets applications to locate and process information 01.10 Apply a variety of mathematical techniques 01.11 Apply thinking skills and creativity 02.09 Prepare flowcharts 02.10 Prepare reports and instructions 02.11 Convey information and ideas to people 03.13 Develop and maintain team harmony and resolve conflict 03.14 Facilitate and coordinate teams and ideas 03.15 Liaise to achieve identified outcomes 03.16 Identify and assess client/customer needs 04.06 Allocate work	1. Communication skills 2. Conceptual skills 3. Interpersonal skills 4. Learning skills 5. Leadership skills 6. Multitasking and prioritising 7. Self-discipline 8. Teamwork

Tools, Equipment and Materials (TEM)

ITEMS	RATIO (TEM : Trainees)
1. Stationery 2. Camera 3. Computer & peripherals 4. Measuring tools 5. Safety equipment (Protective Personal Equipment) 6. Authority manual & guidelines	As per required 1:5 1:1 1:4 1:1 1:5

References

REFERENCES
<ol style="list-style-type: none">1. The Easy Massage Work Book, Clare Harris, 2006, ISBN –978-84483-882-02. Traditional and Complementary Medicine, Practice Guidelines on Malay Massage, 2007, ISBN –983-44754-4-43. The Complete Illustrated Guide to Massage, Steward Mitchell, 1997, ISBN –1- 85230-990-34. Professional Beauty Therapy Level 3, Lorraine Nordmann, 2007, ISBN –978-1-84480-696-65. Beauty Basics Level 1, Lorraine Nordmann, 2007, ISBN –978-1-84480-694-26. Sport Massage, Tim Paine, 2000, ISBN –0-71365007-97. Fibromyalgia & Chronic, Myofascial Pain, Devin starlanly and Mary Ellen Copeland, 2001, ISBN –1- 57224-238-88. Berurut Untuk Pemulihan Urat Saraf, Amran Kasimin Dan Abdullah Seman, 1995, ISBN –983-9601-95-49. Good Practice Guideline on full body massage, Tradiditional dan Komplementeri Kementerian Kesihatan, Malaysia, 2011, ISBN –978-98344754-9-9

CURRICULUM of COMPETENCY UNIT (CoCU)

Sub Sector		ARCHITECTURAL AND BUILDING						
Job Area		SIGNAGE PRODUCTION AND INSTALLATION						
NOSS Title		SIGNAGE SUPERVISION						
Competency Unit Title		SUPERVISORY FUNCTIONS						
Learning Outcome		The person who is competent in this CU shall be able to describe the skills, knowledge and attitude requirements in supervisory functions. Upon completion of this competency unit, trainees will be able to: - <ul style="list-style-type: none">• Conduct section meeting• Plan work programme• Coordinate work/activities						
Competency Unit ID		BC-045-3:2013:E01	Level	3	Training Duration	100 Hours	Credit Hours	10
Work Activities	Related Knowledge	Related Skills		Attitude/Safety/Environmental		Training Hours	Delivery Mode	Assessment Criteria
1. Conduct section meeting	i. Coordination meeting <ul style="list-style-type: none">• Target group• Agenda• Work progress• Meeting schedule ii. Administer document compilation					10	Lecture	i. Meeting schedule and agenda prepared ii. Target group informed iii. Previous minutes confirmed
		i. Organise meeting schedule and agenda ii. Notify target group iii. Verify previous minutes iv. Record minutes of meeting		Attitude: i. Possess interpersonal communication skills ii. Firm in decision		24	Demonstration and observation	iv. Minutes of meeting recorded and distributed

Work Activities	Related Knowledge	Related Skills	Attitude/Safety/ Environmental	Training Hours	Delivery Mode	Assessment Criteria
			making iii. Dedication towards job scope iv. Objective driven v. Ability to chair meeting vi. Resourceful in knowledge <u>Safety</u> i. Safety conscious			
2. Plan work programme	i. Managing work and resources • Sequence of work/activity • Manpower • Machineries/tools ii. Work programme requirements • Schedule • Deadline • Duration of work/activity/ resources			10	Lecture	i. Work flow established ii. Manpower selected iii. Machineries/ tools arranged iv. Work programme generated
		i. Identify work flow ii. Determine manpower requirements iii. Coordinate machineries/tools iv. Produce work programme	<u>Attitude</u> i. Well organised in ii. Possess team work spirit	16	Demonstration and observation	

Work Activities	Related Knowledge	Related Skills	Attitude/Safety/ Environmental	Training Hours	Delivery Mode	Assessment Criteria
			iii. Precise in target requirement iv. Strictly follow work schedule v. Result orientated vi. Firm in decision making <u>Environment</u> i. Maintain good housekeeping ii. Control wastage of materials			
3. Coordinate work/activities	i. Implementing work tasks: • Production • Installation			10	Lecture	i. Work activities identified ii. Work activities organised iii. Work activities assigned
		i. Recognise work activities ii. Plan work activities iii. Delegate work activities	<u>Attitude</u> i. Ability to instruct ii. Well organised iii. Firm in decision making iv. Punctual in conducting sessions v. Rational in arranging work activities	30	Demonstration and observation	

Work Activities	Related Knowledge	Related Skills	Attitude/Safety/ Environmental	Training Hours	Delivery Mode	Assessment Criteria
			<u>Safety</u> i. Adhere to all standard safety practice and procedures ii. Rules and regulation at working area <u>Environment:</u> i. Maintain good housekeeping ii. Control wastage of materials			

Employability Skills

Core Abilities	Social Skills
01.07 Utilise database applications to locate and process information 01.08 Utilise spreadsheets applications to locate and process information 01.10 Apply a variety of mathematical techniques 01.11 Apply thinking skills and creativity 02.09 Prepare flowcharts 02.10 Prepare reports and instructions 02.11 Convey information and ideas to people 03.13 Develop and maintain team harmony and resolve conflicts 03.14 Facilitate and coordinate teams and ideas 03.15 Liaise to achieve identified outcomes 03.16 Identify and assess client/customer needs 04.06 Allocate work 05.01 Implement project/work plans 05.02 Inspect and monitor work done and/or in progress 06.07 Develop and maintain networks	1. Communication skills 2. Conceptual skills 3. Interpersonal skills 4. Learning skills 5. Leadership skills 6. Multitasking and prioritising 7. Self-discipline 8. Teamwork

Tools, Equipment and Materials (TEM)

ITEMS	RATIO (TEM : Trainees)
1. Stationery 2. Computer & peripherals 3. Software –AutoCAD, Microsoft 4. Measuring tools 5. Safety equipment (Protective Personal Equipment) 6. Authority manual & guidelines	As per required 1:5 1:1 1:4 1:1 1:5

References

REFERENCES

1. The Easy Massage Work Book, Clare Harris, 2006, ISBN –978-84483-882-0
2. Traditional and Complementary Medicine, Practice Guidelines on Malay Massage, 2007, ISBN –983-44754-4-4
3. The Complete Illustrated Guide to Massage, Steward Mitchell, 1997, ISBN –1- 85230-990-3
4. Professional Beauty Therapy Level 3, Lorraine Nordmann, 2007, ISBN –978-1-84480-696-6
5. Beauty Basics Level 1, Lorraine Nordmann, 2007, ISBN –978-1-84480-694-2
6. Sport Massage, Tim Paine, 2000, ISBN –0-71365007-9
7. Fibromyalgia & Chronic, Myofascial Pain, Devin starlanly and Mary Ellen Copeland, 2001, ISBN –1- 57224-238-8
8. Berurut Untuk Pemulihan Urat Saraf, Amran Kasimin Dan Abdullah Seman, 1995, ISBN –983-9601-95-4
9. Good Practice Guideline on full body massage, Tradiditional dan Komplementeri Kementerian Kesihatan, Malaysia, 2011, ISBN –978-98344754-9-9

SUMMARY OF TRAINING DURATION FOR SIGNAGE SUPERVISION (LEVEL 3)

NO. ID	COMPETENCY UNIT TITLE	WORK ACTIVITIES	RELATED KNOWLEDGE (A)	RELATED SKILLS (B)	HOURS (A) + (B)	TOTAL (HRS)
1	SIGNAGE SITE SURVEY (Core)	Prepare site survey information	22	60	82	200
		Carry out site investigation.	24	50	74	
		Produce site survey report	16	28	44	
2	SIGNAGE MATERIAL PREPARATION (Core)	Prepare material/product information.	32	72	104	200
		Prepare material/product quantity	24	72	96	
3	SIGNAGE QUALITY CONTROL (Core)	Conduct Fabrication Quality Control	24	72	96	320
		Conduct Installation Quality Control	32	90	122	
		Conduct Testing and Commissioning Process	26	76	102	
TOTAL HOURS (Core Competencies)			200	520	720	720
4	SUPERVISORY FUNCTION (Elective)	Conduct section meeting.	10	24	34	100
		Plan work programme	10	16	26	
		Coordinate work/activities	10	30	40	
TOTAL HOURS (+ Elective Competency)			230	590	820	820