

Model Curriculum

Sound Engineer

SECTOR: MEDIA AND ENTERTAINMENT
**SUB-SECTOR: Television, Print, Radio, Digital,
Out-of-home**
OCCUPATION: Sound Engineer
REF ID: MES/ Q 3402
NSQF LEVEL: 4



Certificate

CURRICULUM COMPLIANCE TO QUALIFICATION PACK – NATIONAL OCCUPATIONAL STANDARDS

is hereby issued by the

Media and Entertainment Skill Council

for

MODEL CURRICULUM

Complying to National Occupational Standards of

Job Role/ Qualification Pack: **'Sound Engineer'** QP Ref. No. **'MES/Q3402, NSQF Level 4'**

Date of Issuance: 27th January 2022

Valid up to: 25th January 2027

* Valid up to the next review date of the Qualification Pack

Authorized Signatory
Media and Entertainment Skill Council



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Sound Engineer

CURRICULUM / SYLLABUS

This program is aimed at training candidates for the job of a “Sound Engineer”, in the “Media and Entertainment” Sector/Industry and aims at building the following key competencies amongst the learner

Program Name	Sound Engineer		
Qualification Pack Name & Reference ID. ID	MES/ Q 3402		
Version No.	2.0	Version Update Date	27-Jan-22
Pre-requisites to Training	Class XII with one year of relevant experience OR Sound Assistant NSQF Level-3 with two years of relevant experience OR Class X pass with three years of experience Min Age: 18 Year		
Training Outcomes	After completing this programme, participants will be able to: <ul style="list-style-type: none"> Aligning the sound input and output interfaces, including sound levels, polarity/phase, acoustic impedance, frequency, path, interferences, troubleshooting, sampling rate, bandwidth Monitor the recorder line-up Make sound recordings Maintain documentation Work with sound sources Mix sound during post-production or live recordings to achieve the level, tonal quality, audio image and intelligibility required Work with contributors and colleagues Demonstrate the health, safety and security risks prevalent in the workplace Knowing the people responsible for health and safety and the resources available Identifying and reporting risks Complying with procedures in the event of an emergency 		

This course encompasses 4 out of 4 National Occupational Standards (NOS) of “Sound Engineer” Qualification Pack issued by “Media & Entertainment Skills Council”.

Sr. No.	Module	Key Learning Outcomes	Equipment Required
1	<p>Prepare sound equipment</p> <p>Theory Duration (hh:mm) 35:00</p> <p>Practical Duration (hh:mm) 55:00</p> <p>Corresponding NOS Code MES /N 3405</p>	<ul style="list-style-type: none"> Understanding the sound requirements of production Align/synchronise the inputs and output interfaces of sound systems to ensure that the sound signals are sent and received at the correct specifications Test sound signals for an appropriate duration to ensure that they meet requirements and are free from disturbances and defects Respond positively to feedback and changes in creative requirements 	Laptop, white board, marker, projector,
2	<p>Record sound</p> <p>Theory Duration (hh:mm) 40:00</p> <p>Practical Duration (hh:mm) 70:00</p> <p>Corresponding NOS Code MES /N 3407</p>	<ul style="list-style-type: none"> Confirm that the recorded line-up meets the standards required of the production (required frequency response, signal-to-noise ratio, free from audible defects, maintains the phase relationship of the line-up signals) Include in the recorded line-up the identifying codes and information for its correct reproduction Supply, monitor and check the correct line-up tone at either the camera, mixer and/or recorder Assess locations and report to the appropriate person any problems or potential problems that will prevent the making of an acceptable recording Provide, or ensure availability of, suitable equipment for any reasonable audio requirements likely to arise within the expected parameters of the job .Make test recordings, using typical programme material, which are free from audible defects Make sure the recording medium has sufficient capacity for the expected duration of the recording Make sure that previously recorded material that may be needed is not lost or recorded over 	Laptop, white board, marker, projector,

Sr. No.	Module	Key Learning Outcomes	Equipment Required
		<ul style="list-style-type: none"> • Make sure that, when synchronisation is required, the recording machine is correctly referenced, and that it runs stably • Where appropriate control background sound levels to be consistent and suitable for the subsequent use of the recording • Produce required sound in the desired format, at the required level, and with the dynamic range appropriate for the recording medium or technology • Record sufficient sound at the beginning and end of the take to allow a smooth transition to adjacent material • Make any additional recordings that are required by the editor or sound editor such as wild tracks of atmosphere, sound effects or dialogue • Produce documentation and labelling which is accurate, legible, up-to-date, readily accessible and which meets the requirements of the production • Identify and log all recording accurately, and in a way that is acceptable and understandable by subsequent users in editing and post-production 	
3	<p>Mix sound</p> <p>Theory Duration (hh:mm) 30:00</p> <p>Practical Duration (hh:mm) 60:00</p> <p>Corresponding NOS Code MES /N 3412</p>	<ul style="list-style-type: none"> • Select valid criteria and use reliable methods to assess the sources required for the final mix • Confirm that sound sources have the desired intelligibility, position and image in terms of the required sound • Ensure that stereo and multi-channel sound sources have the required compatibility, where appropriate • Control the level of the composite signal within technical limits and within the desired dynamic range • Manipulate sound sources to achieve the level, balance, tonal quality, perspective and dynamic range appropriate to the required sound • Create the sound mix within production constraints 	<p>Laptop, board, projector, white marker,</p>

Sr. No.	Module	Key Learning Outcomes	Equipment Required
		<ul style="list-style-type: none"> • Create a sound mix which is appropriate to the context in which it will be heard • Accurately identify and promptly correct any problems in creating the mix, minimising disruption to contributors and colleagues • Ensure that tracks and mixes are organised in a way that is suitable for later use in editing • Ensure that any paperwork is accurate, legible and conforms to conventions that will be understood by other mixers, sound technicians etc. • Efficiently communicate with sound or other crew regarding equipment positioning and requirements • Respond to and interpret suggestions from the contributor, colleagues, client or production during sound mixing, clarify any ambiguities or misunderstandings, and take appropriate action • Explain clearly any problems with the sound mix, and offer realistic options 	
4	<p>Maintain Workplace, Health & Safety</p> <p>Theory Duration (hh:mm) 20:00</p> <p>Practical Duration (hh:mm) 30:00</p> <p>Corresponding NOS Code MES/N 0104</p>	<ul style="list-style-type: none"> • Understand and comply with the organisation’s current health, safety and security policies and procedures. • Understand the safe working practices pertaining to own occupation. • Understand the government norms and policies relating to health and safety including emergency procedures for illness, accidents, fires or others which may involve evacuation of the premises • Participate in organization health and safety knowledge sessions and drills • Identify the people responsible for health and safety in the workplace, including those to contact in case of an emergency • Identify security signals e.g. fire alarms and places such as staircases, fire warden stations, first aid and medical rooms • Identify aspects of your workplace that could cause potential risk to own and others health and safety 	<p>Handbook, White board, marker, computer system, projector, PPTs</p>

Sr. No.	Module	Key Learning Outcomes	Equipment Required
		<ul style="list-style-type: none"> Identify and recommend opportunities for improving health, safety, and security to the designated person Report any hazards outside the individual's authority to the relevant person in line with organizational procedures and warn other people who may be affected Identify and correct risks like illness, accidents, fires or any other natural calamity safely and within the limits of individual's authority. 	
	<p>Total Duration 450:00</p> <p>Theory Duration 125:00</p> <p>Practical Duration 215:00</p> <p>OJT 60:00</p>	<p>Unique Equipment Required: Laptop, PowerPoint & white board, marker, projector, Laptop, Sample pictures and videos, Cleaning tools, electricity tester, safety and ergonomics chart, Fire Extinguisher, First-Aid Kit</p>	

Grand Total Course Duration: **450 Hours, 0 Minutes**

(This syllabus/ curriculum has been approved by [Media and Entertainment Skill Council](#))

Trainer Prerequisites for Job role: “Sound Engineer” mapped to Qualification Pack: “MES/ Q 3402, v2.0”

Sr. No.	Area	Details
1	Description	Sound engineer in the Media & Entertainment Industry is also known as a Sound Mixer or Sound Recordist Brief. This job are responsible to record and mix sound sources to create end-products that meet the quality standards and requirements of production.
2	Personal Attributes	This job requires the individual to know how to operate a range of sound equipment and software. The individual must be well-versed with the principles of sound and acoustics. The individual must be able to select sound sources and apply various mixing techniques and treatments to create quality end-products that meet production requirements.
3	Minimum Educational Qualifications	Class XII, preferably with a background in physical sciences
4a	Domain Certification	Certified for Job Role: “ <u>Sound Engineer</u> ” mapped to QP: “MES/ Q 3402, v2.0”. Minimum accepted score is 70%
4b	Platform Certification	Recommended that the Trainer is certified for the Job Role: “Trainer”, mapped to the Qualification Pack: “MES/Q 3402”. Minimum accepted % as per respective SSC guidelines is 60%.
5	Experience	3+ Years of work experience, with experience installing or working with studio equipment

Annexure: Assessment Criteria

Assessment Criteria	
Job Role	Sound Engineer
Qualification Pack	MES/ Q 3402, v2.0
Sector Skill Council	Media & Entertainment

Sr. No.	Guidelines for Assessment
1	Criteria for assessment for each Qualification Pack will be created by the Media and Entertainment Skill Council. Each Performance Criteria (PC) will be assigned marks proportional to its importance in NOS. SSC will also lay down proportion of marks for each PC.
2	Each NOS will be assessed both for theoretical knowledge and practical
3	The assessment will be based on knowledge bank of questions created by the SSC.
4	Individual assessment agencies will create unique question papers for theory and skill practical part for each candidate at each examination/training centre
5	To pass the Qualification Pack, every trainee should score a minimum of 60% in every NOS
6	In case of successfully passing only certain number of NOS's, the trainee is eligible to take subsequent assessment on the balance NOS's to pass the Qualification Pack

	NOS	NOS NAME	Weightage
1	MES / N 3405	Prepare sound equipment	45%
2	MES/ N 3407	Record sound	25%
3	MES/ N 3412	Mix sound	25%
4	MES / N 0104	Maintain workplace health and safety	5%
			100%

Job Role	Sound Engineer					
NOS CODE	NOS NAME	Performance Criteria			Marks Allocation	
			Total Mark	Out Of	Theory	Skills Practical
MES/ N 3405	Prepare sound equipment	PC1. Understanding the sound requirements of production	100	30	10	60
		PC2. Align/synchronize the inputs and output interfaces of sound systems to ensure that the sound signals are sent and received at the correct specifications		30	10	
		PC3. Test sound signals for an appropriate duration to ensure that they meet requirements and are free from disturbances and defects		20	10	
		PC4. Respond positively to feedback and changes in creative requirements		20	10	
			Total	100	40	60
MES/ N 3407	Record sound	PC1. Confirm that the recorded line-up meets the standards required of the production (required frequency response, signal-to noise ratio, free from audible defects, maintains the phase relationship of the line-up signals)	100	5	2	60
		PC2. Include in the recorded line-up the identifying codes and information for its correct reproduction		5	2	

		PC3. Supply, monitor and check the correct line-up tone at either the camera, mixer and/or recorder	5	2
		PC4. Assess locations and report to the appropriate person any problems or potential problems that will prevent the making of an acceptable recording	5	2
		PC5. Provide, or ensure availability of, suitable equipment for any reasonable audio requirements likely to arise within the expected parameters of the job	10	4
		PC6. Make test recordings, using typical programme material, which are free from audible defects	5	2
		PC7. Make sure the recording medium has sufficient capacity for the expected duration of the recording	10	4
		PC8. Make sure that previously recorded material that may be needed is not lost or recorded over	10	4
		PC9. Make sure that, when synchronization is required, the recording machine is correctly referenced, and that it runs stably	5	2

		PC10. Where appropriate control background sound levels to be consistent and suitable for the subsequent use of the recording	10	4	
		PC11. Produce required sound in the desired format, at the required level, and with the dynamic range appropriate for the recording medium or technology	10	4	
		PC12. Record sufficient sound at the beginning and end of the take to allow a smooth transition to adjacent material	5	2	
		PC13. Make any additional recordings that are required by the editor or sound editor such as wild tracks of atmosphere sound effects or dialogue	5	2	
		PC14. Produce documentation and labelling which is accurate, legible, up-to-date, readily accessible and which meets the requirements of the production	5	2	
		PC15. Identify and log all recording accurately, and in a way that is acceptable and understandable by subsequent users in editing and post-production	5	2	
		Total	100	40	60

MES/ 3412	N Mix sound	PC1. Select valid criteria and use reliable methods to assess the sources required for the final mix	100	10	4	60
		PC2. Confirm that sound sources have the desired intelligibility, position and image in terms of the required sound		10	4	
		PC3. Ensure that stereo and multi-channel sound sources have the required compatibility, where appropriate		5	2	
		PC4. Control the level of the composite signal within technical limits and within the desired dynamic range		5	2	
		PC5. Manipulate sound sources to achieve the level, balance, tonal quality, perspective and dynamic range appropriate to the required sound		10	4	
		PC6. Create the sound mix within production constraints		5	2	
		PC7. Create a sound mix which is appropriate to the context in which it will be heard		10	4	
		PC8. Accurately identify and promptly correct any problems in creating the mix, minimizing disruption to contributors and colleagues		10	4	

		PC9. Ensure that tracks and mixes are organized in a way that is suitable for later use in editing		5	2	
		PC10. Ensure that any paperwork is accurate, legible and conforms with conventions that will be understood by other mixers, sound technicians etc.		10	4	
		PC11. Efficiently communicate with sound or other crew regarding equipment positioning and requirements		10	4	
		PC12. Respond to and interpret suggestions from the contributor, colleagues, client or production during sound mixing, clarify any ambiguities or misunderstandings, and take appropriate action		5	2	
		PC13. Explain clearly any problems with the sound mix, and offer realistic options		5	2	
			Total	100	40	60
MES/ N 0104	Maintain workplace health and safety Description	PC1. Understand and comply with the organization's current health, safety and security policies and procedures	100	10	5	50
		PC2. Understand the safe working practices pertaining to own occupation		10	5	

		PC3. Understand the government norms and policies relating to health and safety including emergency procedures for illness, accidents, fires or others which may involve evacuation of the premises	5	3	
		PC4. Participate in organization health and safety knowledge sessions and drills	5	2	
		PC5. Identify the people responsible for health and safety in the workplace, including those to contact in case of an emergency	10	5	
		PC6. Identify security signals e.g. fire alarms and places such as staircases, fire warden stations, first aid and medical rooms	10	5	
		PC7. Identify aspects of your workplace that could cause potential risk to own and others health and safety	10	5	
		PC8. Ensure own personal health and safety, and that of others in the workplace through precautionary measures	10	5	
		PC9. Identify and recommend opportunities for improving health, safety, and security to the designated person	5	3	
		PC10. Report any hazards outside the individual's authority to the relevant person in line with organizational procedures and warn other people who may be affected	10	5	
		PC11. Follow organization's emergency procedures for accidents, fires or any other natural calamity in case of a hazard	10	5	

		PC12. Identify and correct risks like illness, accidents, fires or any other natural calamity safely and within the limits of individual's authority		5	2	
			Total	100	50	50