

Model Curriculum

Aerospace CNC Machinist

SECTOR: AEROSPACE AND AVIATION
SUB-SECTOR: MANUFACTURING & ASSEMBLY
OCCUPATION: MACHINING
REF ID: AAS/Q1001 , V1.0
NSQF LEVEL: 4



Certificate

**CURRICULUM COMPLIANCE TO
QUALIFICATION PACK – NATIONAL OCCUPATIONAL STANDARDS**
is hereby issued by the

AEROSPACE & AVIATION SECTOR SKILL COUNCIL (AASSC)

for the

MODEL CURRICULUM

Complying to National Occupational Standards of
Job Role/Qualification Pack : **'Aerospace CNC Machinist'** QP No. **'AAS/Q1001' NSQF level 4'**

Date of issuance : 05 February 2018
Valid up to : 04 February 2019
* Valid up to the next review date of the Qualification Pack



(Authorised signatory)
Aerospace & Aviation Sector Skill Council (AASSC)

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Aerospace CNC Machinist

CURRICULUM / SYLLABUS

This program is aimed at training candidates for the job of a “Aerospace CNC Machinist”, in the “Aerospace and Aviation” Sector/Industry and aims at building the following key competencies amongst the learner.

Program Name	Aerospace CNC Machinist		
Qualification Pack Name & Reference ID.	AAS/Q1001		
Version No.	1.0	Version Update Date	17 – 01 - 2018
Pre-requisites to Training	I.T./Diploma in Mechanical trade		
Training Outcomes	<p>After completing this programme, participants will be able to</p> <ul style="list-style-type: none"> • Carry out machining of aerospace components/ structures with CNC machines. • Carry out all activities of pre-machining & post machining stages confidently. • Accomplish self-inspection & gauging. • Execute 5S methodology in workplace organisation • Develop good communication and interpersonal skills • Work well in a team. 		

This course encompasses 6 out of 6 National Occupational Standards (NOS) of “Aerospace CNC Machinist” Qualification Pack issued by “Aerospace and Aviation Sector Skill Council (AASSC)”.

Sr. No.	Module	Key Learning Outcomes	Equipment Required
1	<p>Perform pre-machining activities Theory Duration (hh:mm) 74:00 Practical Duration (hh:mm) 80:00 Corresponding NOS Code AAS/N1002</p>	<ul style="list-style-type: none"> Obtain drawings, route card / work instruction / CNC process sheet / CNC set-up sheet, details of fixtures (if any) from shop supervisor Check right Computer Numerically Controlled (CNC) programme and right tools required for machining of aerospace components Draw the raw-material as per specification Check for satisfactory functioning and calibration of the machine Plan the machining process as per process sheet or route card Arrange the required tool bit from stores Arrange appropriate jigs and fixtures as mentioned in the manufacturing drawings / route card / setup sheet / process sheet Measure and mark reference points/ cutting lines on the work pieces, using compasses, calipers, rulers and other measuring tools Mark datum point on the work-piece or check work-piece as per template at once to assure uniformity and continuity Check output requirements/ limits of machining and understand any other specific requirement for machining from process sheet/ route card or work instruction Ensure the do's and don'ts provided in the work instruction is adhered Trial run the CNC programme as specified by the CNC programmer or provided route card / work instruction Discuss technical matters related to machine programming with the engineer/ supervisor/ personnel in the maintenance team 	<p>White/Black board/ Chart paper, Markers/Computer and projector, trainer's guide, student handbook, Charts regarding health & hygiene</p>
2	<p>Perform machining operations Theory Duration (hh:mm) 62:00 Practical Duration (hh:mm) 94:00 Corresponding NOS Code</p>	<ul style="list-style-type: none"> Change the cutting tool of the CNC machining centre as per the process requirement Set up and adjust machine tools, fixtures/ jigs and cutting tools in order to perform machining operations and keep dimensions within the tolerance limit specified in the Standard Operating Procedures 	<p>White/Black board/ Chart paper, Markers/Computer and projector, trainer's guide, student handbook, Charts regarding health & hygiene</p>

Sr. No.	Module	Key Learning Outcomes	Equipment Required
	AAS/N1003	<p>(sops)/operating manuals/ route card / process sheet</p> <ul style="list-style-type: none"> • Lift the work piece/ metal stock manually or through a hoist and position the same securely in the machine using fasteners and hand tools and verify their positions with measuring instruments • Check the centering and facing of the work pieces and check for alignment of the work pieces as per the final product output specifications • Check the working of different holding fixtures, gears, stops etc. To control work piece movement, using hand tools, power tools and measuring instruments • While performing machining activities, mark spots on the work piece/ metal stock before performing the operation • Trial run the machine and move controls to adjust the work-piece • Clearly understand the dos and don'ts of the manufacturing process • Start the machine for operations and select the right cutting tool as per tooling instructions and as per the supervisor's instructions • Understanding of the metallurgical properties of the machined parts • Check the surface of the work-piece to identify any abrasions, holes, inclination etc. • Ensure that the right command is entered in the CNC machine as per defined machining parameters • Ensure that cutting tool length is as per process sheet so that it does not cause deflection in the cutting tool • Run right CNC programme for type of component to be machined • Turn on the coolant valves to maintain temperature in the machine chamber, wherever necessary • Brush or spray lubricating material on work pieces where applicable • Take appropriate action in case of any irregularities • Ensure tool replacement as per recommended tool life in no. Of pieces • Enter readings of key dimensions on control charts/ record; provide required tool offsetting with the help of supervisor 	

Sr. No.	Module	Key Learning Outcomes	Equipment Required
3	<p>Perform post machining activities Theory Duration (hh:mm) 62:00 Practical Duration (hh:mm) 92:00 Corresponding NOS Code AAS/N1004</p>	<ul style="list-style-type: none"> • Maintain the machine as per proper operational condition/ perform daily maintenance check • Perform minor machine maintenance activities such as oiling or cleaning machine and its components as per the schedules given in the maintenance plan • Clean the hydraulic tank/ gauge/ tools/ fixtures as per the cleaning schedule and the process mentioned in the work instruction/ sop manual • Add coolant and lubricant in the machine reservoir as per the sops • Remove chips from different machine areas and dispose of scrap or waste material into the disposal area in accordance with the company policies and environmental regulations • Perform minor repairs and adjustments to the machine and notify the supervisor/ maintenance team when major service/ repair is required • Return drawings, tools and other measuring equipment to respective department • With the help of the correct tool remove extra burrs, sharp edges, rust and chips from the metal surface • Use files, hand grinders, wire brushes, or power tools for performing de-burring operations and ensure usage of personal protective equipment (ppes) such as eye glasses and hand gloves • Trim, scrape, or deburr objects or parts using chisels, scrapers, and other hand tools and equipment • Perform shot blasting/ vibro processes for completing de-burring operations (if required) • Measure the specifications of the finished component and verify conformance as per control plan/ work instruction • Use devices like micrometers, vernier calipers, gauges, rulers and any other inspection equipment for measuring specifications with valid calibration status • Note down the observations of the basic inspection process and identify pieces which comply with the specified standards 	<p>White/Black board/ Chart paper, Markers/Computer and projector, trainer's guide, student handbook, Charts regarding health & hygiene</p>

Sr. No.	Module	Key Learning Outcomes	Equipment Required
		<ul style="list-style-type: none"> Separate the defective pieces into two categories – pieces which can be repaired/ modified and pieces which are beyond repair, and maintain records of each category Ensure that any blunt tool is timely and safely replaced by a new tool Replace machine part as per work instructions, using hand tools or notify supervisor/ engineering personnel for taking corrective actions Observe the tool change cycle in order to ensure that the selected tool is transferred to the spindle from magazine after the previous tool is transferred to the magazine from the spindle Ensure that the zero offset value is chosen at the time of tool changing process 	
4	<p>Follow organisation safety and security procedures Theory Duration (hh:mm) 19:00 Practical Duration (hh:mm) 29:00 Corresponding NOS Code AAS/N1001</p>	<ul style="list-style-type: none"> Comply with the organisation's safety and security policies and procedures Comply with the regulatory guidelines on safe conduct of operations and maintenance of conditions to thwart any acts of unlawful interference Report any identified breaches of safety and security policies and procedures to the designated person Report any theft of organisation property according to the organisation policy Coordinate with other resources at the workplace (within and outside the organisation) to achieve a safe and secure environment Identify and mitigate any safety and security hazards like illness, accidents, fires or acts of unlawful interference if it falls within the limits of the individual's authority Report any hazards outside the individual's authority to the relevant person in line with organisational procedures and regulatory guidelines Follow the organisation's emergency procedures for accidents, fires or acts of unlawful interference Identify and recommend opportunities for improving health, safety, and security to the designated person Ensure that all health and safety records are updated and procedures are well defined 	White/Black board/ Chart paper, Markers/Computer and projector, trainer's guide, student handbook, Charts regarding health & hygiene

Sr. No.	Module	Key Learning Outcomes	Equipment Required
5	<p>Maintain 5S at the work premises Theory Duration (hh:mm) 09:00 Practical Duration (hh:mm) 23:00 Corresponding NOS Code ASC/N0021</p>	<ul style="list-style-type: none"> • Follow the sorting process and check that the tools, fixtures & jigs that are lying on workstations are the ones in use and unnecessary items are not cluttering the workbenches or work surfaces • Ensure segregation of waste into hazardous/ non-hazardous waste as per the sorting work instructions • Follow the technique of waste disposal and waste storage in the proper bins as per sop • Segregate the items which are labeled as red tag items for the process area and keep them in the correct places • Sort the tools/ equipment/ fasteners/ spare parts as per specifications/ utility into proper trays, cabinets, lockers as mentioned in the 5s guidelines/ work instructions • Ensure that material storage areas are not overflowing • Properly stack the various types of boxes and containers as per the size/ utility to avoid any fall of items/ breakage and also enable easy sorting when required • Return extra material and tools to the designated sections and make sure that no additional material/ tool is lying near the work area • Follow the floor markings/ area markings used for demarcating the various sections in the plant as per the prescribed instructions and standards • Follow the proper labeling mechanism of instruments/ boxes/ containers and maintain reference files/ documents with the codes and the lists • Check that the items in the respective areas have been identified as broken or damaged • Follow the given instructions and check for labeling of fluids, oils. Lubricants, solvents, chemicals etc. And proper storage of the same to avoid spillage, leakage, fire etc. • Make sure that all material and tools are stored in the designated places and in the manner indicated in the 5s instructions • Check whether safety glasses are 	<p>White/Black board/ Chart paper, Markers/Computer and projector, trainer's guide, student handbook, Charts regarding health & hygiene</p>

Sr. No.	Module	Key Learning Outcomes	Equipment Required
		<p>clean and in good condition</p> <ul style="list-style-type: none"> • Keep all outside surfaces of recycling containers clean • Ensure that the area has clean floors, clean machinery and is generally clean. While cleaning is in progress, ensure that proper displays are maintained on the floor which indicate potential safety hazards • Check whether all hoses, cabling & wires are clean, in good condition and clamped to avoid any mishap or mix up • Ensure that workbenches and work surfaces are clean and in good condition • Follow the cleaning schedule for the lighting system to ensure proper illumination • Store cleaning material and equipment in the correct location and in good condition • Ensure self-cleanliness - clean uniform, clean shoes, clean gloves, clean helmets, and personal hygiene • Follow the daily cleaning standards and schedule to create a clean working environment • Attend all training programs for employees on 5s • Support the team during the audit of 5s • Participate actively in employee work groups on 5s and encourage team members for active participation • Follow the guidelines for what to do and what not to do to build sustainability in 5s as mentioned in the 5s check lists/ work instructions 	
6	<p>Work Effectively in a Team Theory Duration (hh:mm) 14:00 Practical Duration (hh:mm) 18:00 Corresponding NOS Code AAS /N0503</p>	<ul style="list-style-type: none"> • Display courteous and helpful behaviour at all times • Take opportunities to enhance the level of assistance offered to colleagues • Meet all reasonable requests for assistance within acceptable workplace timeframes • Complete allocated tasks as assigned • Seek assistance when difficulties arise • Use questioning techniques to clarify instructions or responsibilities, • Identify and display a non-discriminatory attitude in all contacts 	<p>White/Black board/ Chart paper, Markers/Computer and projector, trainer's guide, student handbook</p>

Sr. No.	Module	Key Learning Outcomes	Equipment Required
		<p>with customers and other staff members</p> <ul style="list-style-type: none"> • Observe appropriate dress code and presentation as required by the workplace, job role and level of customer contact • Follow personal hygiene procedures according to organisational policy • Interpret, confirm and act on workplace information, instructions and procedures relevant to the particular task • Interpret, confirm and act on legal requirements with regards to anti-discrimination, sexual harassment and bullying • Ask questions to seek and clarify workplace information • Plan and organise daily work routine within the scope of the job role • Prioritise and complete tasks according to required timeframes • Identify work and personal priorities and achieve a balance between competing priorities 	
	<p>Total Duration Theory Duration (hh:mm) 240:00 Practical Duration hh:mm) 336:00</p>	<p>Unique equipment used;</p> <ul style="list-style-type: none"> • 3 Axis CNC Machines • 5 Axis CNC Machines • Personal protective equipment (PPE) (gloves, goggles, ear plugs) • Touch probe • Lever dial • plunger dial with stand (magnetic) • Digital Vernier • Standard fixtures for the CNC Machines • Tool Holder • End Mills • Collets • Machine vice • Clamps • Studs • Centering device • Lubricants • Cutting oils • Carbide Tool Holders 	

Grand Total Course Duration: 576 Hours, 0 Minutes

(This syllabus/ curriculum has been approved by [Aerospace and Aviation Sector Skill Council](#))

Trainer Prerequisites for Job role: “Aerospace CNC Machinist” mapped to Qualification Pack: “AAS/Q1001 ”

Sl. No.	Area	Details
1	Description	To deliver accredited training service, mapping to the curriculum detailed above, in accordance with the Qualification Pack “AAS/Q1001”.
2	Personal Attributes	Aptitude for conducting training, and pre/post work to ensure competent, employable candidates at the end of the training. Strong communication skills, interpersonal skills, ability to work as part of a team; a passion for quality and for developing others; well organised and focused, eager to learn and keep oneself updated with the latest in the mentioned field.
3	Minimum Educational Qualifications	I.T./Diploma in Mechanical trade
4a	Domain Certification	Statutory Certificate from Aerospace and Aviation Sector Skill Council (AASSC) for Job Role: “Aerospace CNC Machinist” mapped to QP: “AAS/Q1001 ”. Minimum accepted score for domain certification will be 80%.
4b	Platform Certification	Recommended that the Trainer is certified for the job role “Trainer” mapped to the Qualification Pack : “MEP/Q 0102”. Minimum accepted percentage as per respective SSC guidelines is 80%.
5	Experience	10 years for ITI tradesmen/05 years for Diploma graduates

ANNEXURE : ASSESSMENT CRITERIA

Job Role : Aerospace CNC Machinist

Qualification Pack : AAS/Q1001

Sector Skill Council : Aerospace and Aviation Sector Skill Council

Guidelines for Assessment

1. Criteria for assessment for each Qualification Pack will be created by the Sector 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 Theory and Skills Practical for each PC.
2. The assessment for the theory part will be based on knowledge bank of questions created by the SSC.
3. Assessment will be conducted for all compulsory NOS, and where applicable, on the selected elective/option NOS/set of NOS.
4. Individual assessment agencies will create unique question papers for theory part for each candidate at each examination/training centre (as per assessment criteria below).
5. Individual assessment agencies will create unique evaluations for skill practical for every student at each examination/training centre based on this criterion.
6. To pass the Qualification Pack, every trainee should score a minimum of 60% of aggregate marks to successfully clear the assessment.
7. In case of unsuccessful completion, the trainee may seek reassessment on the Qualification Pack.

Compulsory NOS Total Marks: 100		Marks Allocation			
Assessment outcomes	Assessment Criteria for outcomes	Total Marks	Out of	Theory	Skills Practical
1. AAS/N1002 (Perform pre-machine activities)	PC 1. Obtain drawings, route card / work instruction / CNC process sheet / CNC set-up sheet, details of fixtures (if any) from shop supervisor		7	3	4
	PC 2. Check right Computer Numerically Controlled (CNC) programme and right tools required for machining of aerospace components		7	3	4
	PC 3. Draw the raw-material as per specification		7	3	4
	PC 4. Check for satisfactory functioning and calibration of the machine		7	3	4
	PC 5. Plan the machining process as per process sheet or route card		8	4	4
	PC 6. Arrange the required tool from stores		8	4	4
	PC 7. Arrange appropriate jigs and fixtures as mentioned in the manufacturing drawings / route card / setup sheet / process sheet		8	4	4

	PC 8. Establish machine datum reference after following proper procedures as per CNC set up sheet	8	4	4
	PC 9. Check output requirements/ limits of machining e.g. Surface finish, specific orientation, gauge inspection etc.	8	4	4
	PC 10. Understand any other specific requirement for machining from process sheet/ route card or work instruction and grain direction, if any.	8	4	4
	PC 11. Ensure that do's and don'ts provided in the work instruction is adhered	8	4	4
	PC 12. Trial run the CNC programme if specified by the CNC programmer or provided route card / work instruction	8	4	4
	PC 13. Discuss technical matters related to machine programming with the engineer/ supervisor.	8	4	4
	Total	100	48	52

Compulsory NOS		Marks Allocation			
Total Marks: 100					
Assessment outcomes	Assessment Criteria for outcomes	Total Marks	Out of	Theory	Skills Practical
2. AAS/N1003 (Perform machining operations)	PC 1. Check the drawing issue (in route/ book card) and ensure that the latest issue/ version is being used	100	5	2	3
	PC 2. Check the calibration certificate of machines before using the same		5	2	3
	PC 3. Study the CNC set-up sheet , drawing, route-card of the component to be machined.		5	2	3
	PC 4. Obtain the relevant cutting tools from the tool crib and verify the same.		5	2	3
	PC 5. Identify the right raw material of given size, specification and verify the same		5	2	3
	PC 6. Change the cutting tool of the CNC machining centre as per the process requirement		5	2	3
	PC 7. Set up and adjust machine tools, fixtures/ jigs and cutting tools in order to perform machining operations and keep dimensions within the tolerance limit specified in the Standard		5	2	3

	Operating Procedures (sops)/operating manuals/ route card / process sheet			
	PC 8. Lift the work piece/ metal stock manually or through a hoist and position the same securely in the machine using fasteners and hand tools and verify their positions with measuring instruments	5	2	3
	PC 9. Load the component and check the centering and facing of the work pieces and check for alignment of the work pieces as per the final product output specifications.	5	2	3
	PC 10. Start the machine for operations and select the right cutting tool as per tooling instructions and as per the supervisor's instructions	5	2	3
	PC 11. Understanding of the metallurgical properties of the machined parts	5	2	3
	PC 12. Check the surface of the work-piece to identify any abrasions, holes, inclination etc.	5	2	3
	PC 13. Ensure that the right command is entered in the CNC machine as per defined machining parameters	5	2	3
	PC 14. Ensure that cutting tool length is as per process sheet so that it does not cause deflection in the cutting tool	5	2	3
	PC 15. Run right CNC programme for type of component to be machined	5	2	3
	PC 16. Turn on the coolant valves to maintain temperature in the machine chamber, wherever necessary	5	2	3
	PC 17. Brush or spray lubricating material on work pieces where applicable	5	2	3
	PC 18. Take appropriate action in case of any irregularities e.g. Power failure, rejection, tool breakage etc.	5	2	2
	PC 19. Extract or lift jammed pieces from machines through use of wire hooks, lift bars, hands etc.	5	1	2
	PC 20. Ensure tool replacement as per recommended tool life	5	1	2
	PC 21. Enter readings of key dimensions on control charts/ record; provide required tool offsetting with the help of supervisor	5	2	3

Total	100	40	60
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Compulsory NOS		Marks Allocation			
Total Marks: 100					
Assessment outcomes	Assessment Criteria for outcomes	Total Marks	Out of	Theory	Skills Practical
3. AAS/N1004 (Perform post machining activities)	PC 1. Maintain the machine as per proper operational condition/ perform daily maintenance check	100	6	2	4
	PC 2. Perform minor machine maintenance activities such as oiling or cleaning machine and its components as per the schedules given in the maintenance plan		6	2	4
	PC 3. Clean the hydraulic tank/ gauge/ tools/ fixtures as per the cleaning schedule and the process mentioned in the work instruction/ SOP manual		6	2	4
	PC 4. Add coolant and lubricant in the machine reservoir as per the sops		6	2	4
	PC 5. Remove chips from different machine areas and dispose of scrap or waste material into the disposal area in accordance with the company policies and environmental regulations		6	2	4
	PC 6. Perform minor repairs and adjustments to the machine and notify the supervisor/ maintenance team when major service/ repair is required		7	3	4
	PC 7. Return drawings, tools and other measuring equipment to respective department		7	3	4
	PC 8. With the help of the correct tool remove extra burrs, sharp edges, rust and chips from the metal surface		7	3	4
	PC 9. Use files, hand grinders, wire brushes, or power tools for performing de-burring operations and ensure usage of Personal Protective Equipment (ppes) such as eye glasses and hand gloves		7	3	4
	PC 10. Trim, scrape, or deburr objects or parts using chisels, scrapers, and other hand tools and equipment		7	3	4
	PC 11. Perform shot blasting/ vibro processes for completing de-burring operations (if required)		7	3	4

	PC 12. Measure the specifications of the finished component and verify conformance as per control plan/ work instruction	7	3	4
	PC 13. Use devices like micrometers, Vernier calipers, gauges, rulers and any other inspection equipment for measuring specifications with valid calibration status	7	3	4
	PC 14. Note down the observations of the basic inspection process and identify pieces which comply with the specified standards	7	3	4
	PC 15. Separate the defective pieces into two categories – pieces which can be repaired/ modified and pieces which are beyond repair, and maintain records of each category	7	3	4
	Total	100	40	60

Compulsory NOS Total Marks: 100		Marks Allocation			
Assessment outcomes	Assessment Criteria for outcomes	Total Marks	Out of	Theory	Skills Practical
4. AAS/N1001 (Follow organisation safety and security procedures)	PC 1. Comply with the organisation's safety and security policies and procedures	100	10	4	6
	PC 2. Comply with the regulatory guidelines on safe conduct of operations and maintenance of conditions to thwart any acts of unlawful interference		10	4	6
	PC 3. Report any identified breaches of safety and security policies and procedures to the designated person		10	4	6
	PC 4. Report any theft of organisation property according to the organisation policy		10	4	6
	PC 5. Coordinate with other resources at the workplace (within and outside the organisation) to achieve a safe and secure environment		10	4	6
	PC 6. Identify and mitigate any safety and security hazards like illness, accidents, fires or acts of unlawful interference if it falls within the limits of the individual's authority		10	4	6

	PC 7. Report any hazards outside the individual's authority to the relevant person in line with organisational procedures and regulatory guidelines	10	4	6
	PC 8. Follow the organisation's emergency procedures for accidents, fires or acts of unlawful interference	10	4	6
	PC 9. Identify and recommend opportunities for improving health, safety, and security to the designated person	10	4	6
	PC 10. Ensure that all health and safety records are updated and procedures are well defined	10	4	6
	Total	100	40	60

Compulsory NOS Total Marks: 100		Marks Allocation			
Assessment outcomes	Assessment Criteria for outcomes	Total Marks	Out of	Viva	Practical
5. ASC/N0021 (Maintain 5S at the work premises)	PC 1. Follow the sorting process and check that the tools, fixtures & jigs that are lying on workstations are the ones in use and unnecessary items are not cluttering the workbenches or work surfaces	170	30	10	20
	PC 2. Ensure segregation of waste into hazardous/ non-hazardous waste as per the sorting work instructions				
	PC 3. Follow the technique of waste disposal and waste storage in the proper bins as per sop				
	PC 4. Segregate the items which are labeled as red tag items for the process area and keep them in the correct places				
	PC 5. Sort the tools/ equipment/ fasteners/ spare parts as per specifications/ utility into proper trays, cabinets, lockers as mentioned in the 5S guidelines/ work instructions				
	PC 6. Ensure that material storage areas are not overflowing				
	PC 7. Properly stack the various types of boxes and containers as per the size/ utility to avoid any fall of items/ breakage and also enable easy sorting when required				
	PC 8. Return extra material and tools to the designated sections and make sure that no				

	additional material/ tool is lying near the work area			
	PC 9. Follow the floor markings/ area markings used for demarcating the various sections in the plant as per the prescribed instructions and standards			
	PC 10. Follow the proper labeling mechanism of instruments/ boxes/ containers and maintain reference files/ documents with the codes and the lists			
	PC 11. Check that the items in the respective areas have been identified as broken or damaged			
	PC 12. Follow the given instructions and check for labeling of fluids, oils. Lubricants, solvents, chemicals etc. And proper storage of the same to avoid spillage, leakage, fire etc.	30	10	20
	PC 13. Make sure that all material and tools are stored in the designated places and in the manner indicated in the 5S instructions			
	PC 14. Check whether safety glasses are clean and in good condition			
	PC 15. Keep all outside surfaces of recycling containers clean			
	PC 16. Ensure that the area has clean floors, clean machinery and is generally clean. While cleaning is in progress, ensure that proper displays are maintained on the floor which indicate potential safety hazards			
	PC 17. Check whether all hoses, cabling & wires are clean, in good condition and clamped to avoid any mishap or mix up	50	10	40
	PC 18. Ensure that workbenches and work surfaces are clean and in good condition			
	PC 19. Follow the cleaning schedule for the lighting system to ensure proper illumination			
	PC 20. Store cleaning material and equipment in the correct location and in good condition			
	PC 21. Ensure self-cleanliness - clean uniform, clean shoes, clean gloves, clean helmets, and personal hygiene			
	PC 22. Follow the daily cleaning standards and schedule to create a clean working environment	30	10	20

	PC 23. Attend all training programs for employees on 5S			
	PC 24. Support the team during the audit of 5S			
	PC 25. Participate actively in employee work groups on 5S and encourage team members for active participation			
	PC 26. Follow the guidelines for What to do and What not to do to build sustainability in 5S as mentioned in the 5S check lists/ work instructions			
	Total	170	50	120

Compulsory NOS Total Marks: 100		Marks Allocation			
Assessment outcomes	Assessment Criteria for outcomes	Total Marks	Out of	Theory	Skills Practical
6. AAS/N0503 Work effectively in a team	PC1. Display courteous and helpful behaviour at all times	100	6	3	3
	PC2. Take opportunities to enhance the level of assistance offered to colleagues		7	3	4
	PC3. Meet all reasonable requests for assistance within acceptable workplace timeframes		6	3	3
	PC4. Complete allocated tasks as required		6	3	3
	PC5. Seek assistance when difficulties arise		7	3	4
	PC6. Use questioning techniques to clarify instructions or responsibilities		6	3	3
	PC7. Identify and display a non-discriminatory attitude in all contacts with customers and other staff members		6	3	3
	PC8. Observe appropriate dress code and presentation as required by the workplace, job role and level of customer contact		7	3	4
	PC9. Follow personal hygiene procedures according to organisational policy and relevant legislation		7	3	4
	PC10. Interpret, confirm and act on workplace information, instructions and procedures relevant to the particular task		7	3	4
	PC11. Interpret, confirm and act on legal requirements in regard to anti-discrimination, sexual harassment and bullying		7	3	4
	PC12. Ask questions to seek and clarify workplace information		7	3	4
	PC13. Plan and organise daily work routine within the scope of the job role		7	3	4

	PC14. Prioritise and complete tasks according to required timeframes	7	3	4
	PC15. Identify work and personal priorities and achieve a balance between competing priorities	7	3	4
	Total	100	45	55