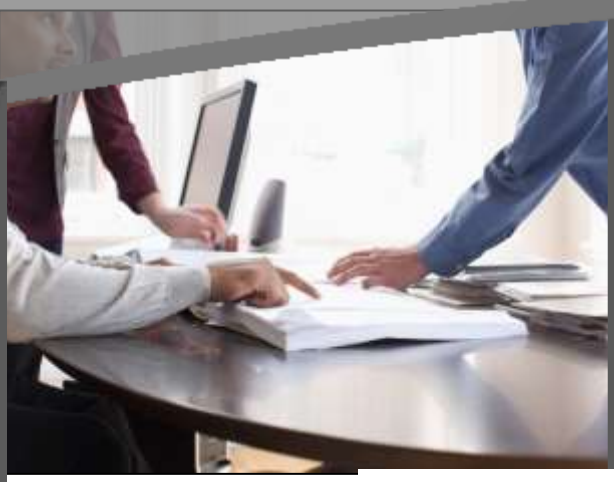
Automotive Skills Development Council

QUALIFICATIONS PACK - OCCUPATIONAL STANDARDS FOR AUTOMOTIVE INDUSTRY



Contents

What are Occupational Standards (OS)?

- OS describe what individuals need to do, know and understand in order to carry out a particular job role or function
- OS are performance standards that individuals must achieve when carrying out functions in the workplace, together with specifications of the underpinning knowledge and understanding

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Introduction

Qualifications Pack- Product Conceptualization Manager

SECTOR: AUTOMOTIVE

SUB-SECTOR: RESEARCH & DEVELOPMENT

OCCUPATION: PRODUCT CONCEPTUALIZATION

JOB ROLE: PRODUCT CONCEPTUALIZATION MANAGER

REFERENCE ID: ASC/Q5103

Product Conceptualization Manager: Product Conceptualization Manager is responsible for idea generation, collecting data for performing sensitivity, trend, economic etc. analysis; collating information for conducting internal and external benchmarking, creation of SQFD, understanding regulatory environment and assimilation of Cross Functional Teams

Brief Job Description: Is responsible for conceiving of the idea as per the designated timelines, ensure understanding the customer needs in consultation with the marketing department, CFT and further using various parameters to ensure it is in direct correlation with customer needs. The role is further responsible for ensuring that external/ internal benchmarking is conducted, creation of SQFD (Simplified Quality Function Definition) and formation of cross functional teams etc. Manage the team of product conceptualization engineers and train them on various product conceptualization activities are also part of this role

Personal Attributes: The individual should have ability to co-relate technical knowledge with market data and material, cost, time estimates for different reports and design specifications, Marketing –Product SOR (statement of requirements). Ability to apply different operational parameters/ principles to resolve engineering problems and finding appropriate solutions. The individual should further have customer orientation, market awareness, out of box thinking, problem solving, analytical skills, latest technologies knowledge, ability to visualize the final product, team management, decision making, proactive ness, strategic orientation etc.

Job Details

Qualifications Pack Code	**ASC/Q5102**		
Job Role	**Product Conceptualization Manager**		
Credits(NSQF)	**TBD**	**Version number**	**1**
Industry	**Automotive**	**Drafted on**	**10/1/2014**
Sub-sector	**R&D**	**Last reviewed on**	**20/1/2014**
Occupation	**Product Conceptualization**	**Next review date**	**20/1/2016**

Job Role	**Product Conceptualization Manager**
Role Description	This role is responsible for idea generation, collecting data for performing sensitivity, trend, economic etc. analysis; collating information for conducting internal and external benchmarking, creation of SQFD, understanding regulatory environment and assimilation of Cross Functional Teams
NVEQF/NVQF level	7
Minimum Educational Qualifications	B.E/ B. Tech (Preferably automobile/ mechanical/ electronics/ electrical engineering)
Maximum Educational Qualifications	• M.E/ M. Tech (Preferably automobile/ mechanical/ electronics/ electrical engineering) • B.E + MBA (Operations)
Training (Suggested but not mandatory)	• Effective Data Collection for market, economic, trend analysis • Economic, regulatory & environmental scenarios as applicable • Problem solving techniques • Team Management • Finance & Costing • Project Management
Experience	8-10 years in R&D automobile product conceptualization
Occupational Standards (OS)	ASC/N 5106: Conceptualize the new product by using different analytical and decision making tools, conducting analysis and ensuring all types of compliance ASC/N0019: Managing the project delivery as a team lead within the cross functional team ASC/N0020: Managing team on a day to day basis ASC/ N0006D: Maintain a safe and healthy working environment
Performance Criteria	As described in the relevant NOS units

Definitions

Keywords /Terms	Description
Core Skills/Generic Skills	Core Skills or Generic Skills are a group of skills that are key to learning and working in today's world. These skills are typically needed in any work environment. In the context of the NOS, these include communication related skills that are applicable to most job roles.
Function	Function is an activity necessary for achieving the key purpose of the sector, occupation, or area of work, which can be carried out by a person or a group of persons. Functions are identified through functional analysis and form the basis of NOS.
Job role	Job role defines a unique set of functions that together form a unique employment opportunity in an organization.
Knowledge and Understanding	Knowledge and Understanding are statements which together specify the technical, generic, professional and organizational specific knowledge that an individual needs in order to perform to the required standard.
National Occupational Standards (NOS)	NOS are Occupational Standards which apply uniquely in the Indian context
Occupation	Occupation is a set of job roles, which perform similar/related set of functions in an industry.
Organisational Context	Organisational Context includes the way the organization is structured and how it operates, including the extent of operative knowledge managers have of their relevant areas of responsibility.
Performance Criteria	Performance Criteria are statements that together specify the standard of performance required when carrying out a task.
Qualifications Pack(QP)	Qualifications Pack comprises the set of NOS, together with the educational, training and other criteria required to perform a job role. A Qualifications Pack is assigned a unique qualification pack code.
Qualifications Pack Code	Qualifications Pack Code is a unique reference code that identifies a qualifications pack.
Scope	Scope is the set of statements specifying the range of variables that an individual may have to deal with in carrying out the function which have a critical impact on the quality of performance required.
Sector	Sector is a conglomeration of different business operations having similar businesses and interests. It may also be defined as a distinct subset of the economy whose components share similar characteristics and interests.

Sub-Sector	Sub-sector is derived from a further breakdown based on the characteristics and interests of its components.
Sub-functions	Sub-functions are sub-activities essential to fulfil the achieving the objectives of the function.
Technical Knowledge	Technical Knowledge is the specific knowledge needed to accomplish specific designated responsibilities.
Unit Code	Unit Code is a unique identifier for a NOS unit, which can be denoted with an '**N**'
Unit Title	Unit Title gives a clear overall statement about what the incumbent should be able to do.
Vertical	Vertical may exist within a sub-sector representing different domain areas or the client industries served by the industry.

Acronyms

Keywords /Terms	Description
NOS	National Occupational Standard(s)
NVEQF	National Vocational Education Qualifications Framework
NVQF	National Vocational Qualifications Framework
OEM	Original Equipment Manufacturer
OS	Occupational Standard(s)
QP	Qualifications Pack
5 S	Technique of maintaining orderliness –Japanese terminology
CP	Control Plan
WI	Work Instructions
SQFD	Simplified Quality Function Definition
CFT	Cross Functional Team
SOR	Statement of requirements

ASC/N5106: Conceptualize the new product by using different analytical and decision making tools, conducting analysis and ensuring all types of compliance

National Occupational Standards

Overview

This Occupational Standard describes the knowledge, understanding and skills required to conceptualize the new product by using different analytical and decision making tools, conducting analysis and ensuring all types of compliance

ASC/N5106: Conceptualize the new product by using different analytical and decision making tools, conducting analysis and ensuring all types of compliance

National Occupational Standard

Unit Code	ASC/N5106
Unit Title (Task)	Conceptualize the new product by using different analytical and decision making tools, conducting analysis and ensuring all types of compliance
Description	This NOS unit is about conceptualizing the new product with the support of different tools and analysis to ensure compliance
Scope	The product conceptualization manager will be responsible for: • Understanding customer needs • Conducting sensitivity analysis • Conducting external and internal benchmarking • Development of the SQFD • Conduct different trend analysis like economic, future, technology and research on alternative fuel • Ensure compliance to all regulatory and environmental requirements The role holder will interact with different Centre of Excellence, different CFT's team, Sourcing Team, product design team, HR and Finance

Performance Criteria (PC) w.r.t. the Scope	
Element	**Performance Criteria**
Understanding Customer Needs	PC1. Understand and determine the customer preferences PC2. Clarify understanding pertaining to specification, parameter, constraints on the product design in consultation with the relevant stakeholders PC3. Understand the relationship between customer needs and satisfaction PC4. Develop a range of criteria against which to evaluate different options and ideas PC5. Conceptualize and develop the product on the basis of 'one dimensional attributes', 'indifferent attributes', 'attractive attributes and 'must be attributes' PC6. Seek both spoken and unspoken needs and translating into action and design PC7. Brainstorming in initial stages of idea generation PC8. Translating/ communicating the initial product idea to the product designer in order to design a product that is aesthetically pleasing, ergonomically friendly and appealing
Conducting sensitivity analysis	PC9. Select the parameters that need to be verified PC10. Identify the range of the parameters that is realistically possible PC11. Design and conduct experiment to check for sensitivity PC12. Summarize the results for further analysis PC13. Calculate values of sensitivity index for each of the parts PC14. Verify if the parts are within the sensitivity range PC15. In case, the results are not optimal, new parts need to be designed
Conduct external benchmarking	PC16. Identify what parameters need to be benchmarked PC17. Understand the data shared by the marketing team on competitor analysis PC18. Develop a plan for benchmarking PC19. Finalize on the data collection methodology and collect data PC20. Choose/ Finalize on the best in class organizations from which benchmarking need to be completed PC21. Analyse the external benchmarking data from demand-side perspective in order to determine if they satisfy the same set of customer needs and from supply-

ASC/N5106: Conceptualize the new product by using different analytical and decision making tools, conducting analysis and ensuring all types of compliance

	side perspective to determine if the organization has the same resources and technology to meet these needs PC22. Analyse data on the product design of the organization in comparison to the competitor design PC23. Analyse parameters like 'feel', comfort, 'handling', efficiency, performance etc. PC24. Benchmark data against the technology being used by competitors PC25. Benchmark data against competitors working/focusing in the same market (for example, big vs. small car market) PC26. Analyse data pertaining to the competitive advantage of one organization and compare the same with the competitive advantage for own organization PC27. Create competitors response profile which captures possible future moves PC28. Conduct SWOT, PESTLE analysis, market segmentation etc.
Conduct internal benchmarking	PC29. Benchmark data against previous products design and performance undertaken and analyse the same PC30. Analyse data on the technologies used previously in comparison to the current one
Collaborate with CFT (Cross Functional Team)	PC31. Collaborate with the Cross Functional Team (CFT) with diverse knowledge for design and fulfilment of customer needs PC32. Define the scope of work for the team along with Product Conceptualization Head PC33. Define the time frame for completion of various activities being undertaken with the various CFT Teams and link the same with product conceptualization plan PC34. Define the method of assessment for evaluation of work completed by the CFT Team
Development of the SQFD (Simplified Quality Function Definition)	PC35. Prepare of the SQFD through ensuring maximum satisfaction to the customer by making sure that product design and contents are as per their wishes PC36. For the SQFD, analyse the revealed requirements (basic wants), expected /implied requirements (customer fail to mention but wants them), exciting /delight requirements (beyond customers' expectations) PC37. Determine and finalize what segments will be analysed during the process and identify who the customers are PC38. Identifying the technical attributes in the SQFD PC39. Classify and assign importance to the requirements of the customer on a scale of 1-5 of as applicable in the respective organization PC40. Creation of relationship matrix to determine the relationship between customer needs and the company's ability to meet those needs PC41. Incorporate technical analysis completed for competitors' products PC42. Establishment for target values for each of the technical descriptors/ parameters PC43. Create a correlation matrix PC44. Eliminate any negative preferences and maximize only on the positive PC45. Complete the documentation on the regulatory requirements PC46. Understand which of the technical descriptors matters the most
Conduct future trend analysis	PC47. Analyse the features currently being used in similar products by the company itself as well as competitors PC48. Analyse the features that customers want/need as well as those that they

ASC/N5106: Conceptualize the new product by using different analytical and decision making tools, conducting analysis and ensuring all types of compliance

	desire PC49. Understand data captured through qualitative surveys on customer needs and desires PC50. Understand data captured through quantitative surveys on customer needs and desires PC51. Analyse to see the potential production and costs of those new features to see economic viability PC52. Analyse the sensitivity to change, structural viability and if the features meet emission, safety and other requirements
Conduct economic trend analysis	PC53. Check the current economic trends and if the customer has the willingness to pay for the product PC54. Develop an approximate cost of the new product given the current and future economic trends PC55. Benchmark the cost of conceptualization and production of current products to the predicted economic trends while making the potential product PC56. Analyse the fuel cost, mileage parameters, maintenance cost etc. PC57. Analysis the different government policies, auto sector methods and export and import parameters PC58. Generate a report to see if the potential customers can afford the product PC59. Analyse macroeconomic policy, spending reports, key metrics such as cost of fuel etc.
Conduct technology trend analysis and research on alternative fuel	PC60. Analyse the current technology that is in use in the industry, internally by the company and by competition PC61. Analyse the future predicted technology to be used PC62. Narrow down the type of technology that is the most beneficial PC63. Develop a cost benefit analysis of the technology to be used with the help of the manager PC64. Decide whether to deploy the technology presently, to keep in the bench from a commercial viability point of view PC65. Coordinate on aspects related to different technology/ alternative fuels/ new regulations with other nodal agency/ ministries
Ensure compliance to all regulatory and environmental requirements	PC66. Understand and analyse the current environmental and governmental regulations in terms of type of vehicles, size and its segment, utility etc. PC67. Check to see if the potential product will meet the environmental and government regulations (regulations of both local and global standards) PC68. Display understanding and orientation towards internal company regulations and if the product meets those PC69. Display understanding and ensure if the emission regulations of the country and globally to see if the product meets those PC70. Display understanding and ensure if the safety regulations of the country and globally to see if the product meets those PC71. Check to see the product is not utilizing a patent of some other organization PC72. Benchmark the regulations that are already in place to the ones predicted for the future to make sure the product will be meeting both requirements
Knowledge and Understanding (K) w.r.t. the scope	
Element	**Knowledge and Understanding**

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A. Organisational Context (Knowledge of the Company/ Organisation and its processes)	The user/individual on the job needs to know and understand: KA1. relevant manufacturing standards and procedures followed in the company KA2. different types of products manufactured by the company KA3. organization methodology on conducting marketing data analysis, benchmarking, KA4. quality norms and standards prescribed in the Quality Manual by the organization KA5. 5S and Safety norms practiced in the organization
B. Technical Knowledge	The user/individual on the job needs to know and understand: KB1. basic working of automobiles KB2. ability to collect data and conduct basic level analysis such as sensitivity, competitor etc. basis the technical parameters that are defined KB3. basic fundamentals of machines and mechanics KB4. application of relevant principles of functionality, ergonomics, aesthetics etc. KB5. ability to consider relevant social, economic, environmental, sustainable, ethical and cultural issues that may impact in design solutions KB6. ability to conduct SWOT, PESTLE analysis KB7. ability to use different data analytics tools KB8. latest technologies in auto industry KB9. latest regulations in auto industry KB10. conduct different financial and macroeconomics analysis KB11. basic Arithmetic and calculation methods for tolerance limits KB12. metallurgical properties of metals used for different processes KB13. the methods of using instruments like Vernier callipers, Micrometres, rulers and other inspection tools KB14. how to read and interpret sketches and engineering drawings KB15. how to visually represent the final product output and hence decide on the key steps to be followed
Skills (S) w.r.t. the scope	
Element	**Skills**
A. Core Skills/ Generic Skills	**Writing skills and reading Skills**
	The user/ individual on the job needs to know and understand how to: SA1. document information from the manuals, discussion notes, process charts etc. SA2. create small notes/ work documents/ diagrams for operators and helpers to help them understand the process SA3. write inter departmental notes/ memos or make suitable entries in the online system SA4. read equipment manuals and process documents to understand the equipment and processes better SA5. read internal information memos sent by internal customers (other functions within the organization)
	Oral Communication (Listening and Speaking skills)
	The user/individual on the job needs to know and understand how to: SA6. discuss task lists, schedules, and work-loads with the team members SA7. answer the queries raised by the team as well as intercompany departments SA8. attentively listen with full attention the queries and grievances raised by the

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	team and comprehend the information given by the speaker
B. Professional Skills	**Analytical thinking**
	The user/individual on the job needs to know and understand how to: SB1. break the problem into smaller issues and tasks to arrive at a solution SB2. understand inter process relationship and establish relationship between various parts of the problem SB3. leverage experience to find effective solutions to problems SB4. use organizations analytical tools to arrive at solutions
	Plan and Organise
	The user/individual on the job needs to know and understand how to: SB5. plan, organize and prioritize the work with Engineering /R & D, Marketing department SB6. plan support required from CFT /project teams for benchmarking ,testing, feasibility exercises SB7. organize information, standards manuals etc. so that sorting becomes easy SB8. reorganize resources in case of change of plans
	Judgment and Critical Thinking
	The user/individual on the job needs to know and understand how to: SB9. use common sense and make judgments during day to day basis SB10. use reasoning skills to identify and resolve problems SB11. use intuition to detect any potential problems which could arise during operations
	Ownership
	The user/individual on the job needs to know and understand how to: SB12. accept additional responsibility for self and the team SB13. encourage self and other to take greater responsibilities SB14. ensure that the work allocated to the team is completed as per timelines and quality norms SB15. identify obstacles and bottlenecks in the process and on own find basic level solutions for removing these obstacles
	Problem solving and decision making
	The user/individual on the job needs to know and understand how to: SB16. gather information skilfully from multiple sources SB17. analyse information in depth and identifies the problem in a timely manner SB18. develop alternate solutions and resolves problems in early stages SB19. work tireless in spite of repeat activities in a diligent manner to resolve problems on a day to day basis SB20. use previous experience in resolving problems and taking decisions SB21. make timely and independent decisions within the boundaries of the delegation matrix of the organization
	Initiative taking
	The user/ individual on the job needs to know and understand how to SB22. clearly establish a goal for self or others to accomplish SB23. without instructions from the manager, self-manage the work

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	SB24. take additional responsibilities to make sure that the work is completed on time
	Customer Orientation
	The user/ individual on the job needs to know and understand how to SB25. identify the needs of the customer SB26. ensure that the product designed meets the expectation of the customer SB27. understands importance of customer feedback and drives customer focus
	Out of Box thinking
	The user/ individual on the job needs to know and understand how to: SB28. familiarise with leading practices available in the market SB29. think independently on new approaches to manufacturing process, material management, data management and team management SB30. represent any new ideas/ approaches on process improvement and productivity improvement to the seniors in the team
	Team work and collaboration
	The user/ individual on the job needs to know and understand how to: SB31. contribute to building a positive team spirit SB32. identify individual strengths & maximize team performance SB33. exhibit objectivity & openness to others' views SB34. collaborate with stakeholders to achieve the desired state of final result

NOS Version Control

NOS Code	**ASC/N5106**		
Credits(NSQF)	**TBD**	**Version number**	**1**
Industry	**Automotive**	**Drafted on**	**10/1/2014**
Industry Sub-sector	**R&D**	**Last reviewed on**	**20/1/2014**
Occupation	**Product Conceptualization**	**Next review date**	**20/1/2016**

National Occupational Standard

Overview

This unit is about effective management of the project delivery within the cross functional team created for completion of the New Product Development

ASC/N0019: Managing the project delivery team as a team lead within the cross functional team

National Occupational Standard

Unit Code	ASC /N0019
Unit Title (Task)	**Managing the project delivery as a team lead within the cross functional tea**
Description	This NOS unit is about handling the project management and project delivery activities within the R&D team such as managing team budgets and costs, institutionalizing process improvement, process excellence and quality management within the team and manage project timelines, project quality, team resourcing and management of stakeholders related to the Product Development project
Scope	The role holder will be responsible for: • managing end to end project delivery activities within an R&D vertical including budgeting and costing for the team • deploy procedures and processes to support the NPD delivery team • managing the R&D team and motivate and engage them to increase the overall productivity of the team

Performance Criteria(PC) w.r.t. the Scope	
Element	**Performance Criteria**
Manage Costs and Budgets for the team	PC1. Ensure timely creation of item wise/ head wise budget for the team on a year on year basis PC2. Ensure that all major and minor cost elements related to equipment, tools, raw material, manpower, consumables and marketing activities are considered during finalization of the budgets for the given financial period/ project delivery period PC3. Conduct effective negotiations along with the commercial team with suppliers and vendors during procurement of equipment, tools and raw material required for delivery of the new product PC4. Support the process wise R&D lead/ head in conducting periodic tracking of Planned Vs. Actual expenditure (Variance Analysis) for the team PC5. Act upon the outcomes of the variance analysis and keep the overall process/ product cost within the specified ranges PC6. Escalate any budgetary exigencies to process wise R&D Lead/ head in a timely manner so that the project delivery does not suffer because of budgetary reasons

ASC/N0019: Managing the project delivery team as a team lead within the cross functional team

Process Excellence and Process Improvement	PC7. Ensure detailed self-understanding of all the requisite processes to be adopted for completing the development job PC8. Ensure drafting and finalizing of process manuals, Work Instructions, Control Plans, process flow charts to enable the team to easily understand and implement the process PC9. Ensure that Work Instructions/ Process steps are displayed in key areas like test labs, CA/CAD centres etc. PC10. Ensuring recording and reporting procedures and systems are in place and shared with the team members PC11. Ensure 5S implementation in the R&D function especially in data management and data storage (Knowledge Management) PC12. Identify areas of improvement in the existing processes/systems and take measures to adhere to the identified Kaizen/ process improvement initiatives PC13. Ensure team has understanding of basic analytical tools like Why Why analysis, brainstorming, 7 QC tools, TQM principles to analyse various problems and design process improvement activities PC14. Ensure that the development team regularly engages with the analytical tools during the various product development team PC15. Implement various business excellence techniques like Kaizen, 5S initiatives and safety interventions to enhance productivity of the team
Project Delivery Management	PC16. Support the process wise R&D lead/ head in creating the project plan for the individual product development team and ensure linkage with the overall NPD plan of the organization PC17. Identify critical areas/ activities which need detailed monitoring and effective implementation to prevent any negative impact on the project process PC18. Ensure tracking of key activities and milestones given in the individual project plan PC19. Support the process wise R&D lead/ head in monitoring of individual project timelines, work quality, development & delivery costs, team contribution and knowledge management activities PC20. Support the process wise R&D lead/ head in creating time bound mitigation plan to deal with project plan variances PC21. Ensure timely setup of design centres, laboratories, testing beds as required by the NPD delivery process mentioned in the overall project plan PC22. In case new equipment/ procedures are required, ensure that the responsible team is contacted well before the execution time in order to prevent delays in the development process PC23. Create required project status reports and share the same the relevant stakeholders in the format finalized by the Cross Functional Project Team PC24. Manage stakeholder relationship and ensure closure of open items needing feedback or approvals from the relevant stakeholders PC25. Ensure effective collaboration and information sharing with other members of the cross functional NPD delivery team PC26. Escalate any pertinent issues to the process wise R&D head which need immediate attention

ASC/N0019: Managing the project delivery team as a team lead within the cross functional team

Human Resource Management	PC27. Finalize along with the individual process head in the CFT, the manpower planning and manpower deployment for the delivery team PC28. Identify the competencies required for the project delivery team PC29. Ensure identification and deployment of right skilled people at the right places on the delivery process PC30. Track the performance of the team during the various stages of the project and provide timely feedback for course correction PC31. Share knowledge of processes , inputs and outputs with the team members to enhance their skill levels PC32. Other than technical trainings, support the team by delivering trainings related to quality and safety for the operators and helpers PC33. Drive a culture of creativity and innovation in the team by given the team members opportunity to think out of box and express their thoughts
Knowledge and Understanding (K)	
A. Organizational Context (Knowledge of the company / organization and its processes)	The user/individual on the job needs to know and understand: KA1. different types of products manufactured by the company KA2. overall R&D strategy for the organization KA3. knowledge of functional processes like Procurement, Store management, inventory management, quality management, HR and key contact points for query resolution KA4. 5S and Safety norms practiced in the organization
B. Technical Knowledge	The user/individual on the job needs to know and understand: KB1. project management techniques and usage of different project management tools like primavera, MS Office etc. KB2. various problems solving tools like 7QC, Why -Why Analysis, Brain storming etc. KB3. fundamental of financial and budgeting process KB4. different type of tools , processes and infrastructure required for the development process KB5. different types of communication channels practiced by the organization KB6. the method of noting observations, maintaining records and sharing them with the concerned in the required format how to share feedback with team members KB7. various data entry tools and formats used in the organization KB8. ability to visualize the final product output and hence decide on the key steps and parameters to be followed KB9. usage of various business correspondence tools like Email, MS Office tools (Word, Excel, Power Point), ERP tools etc. KB10. about the various hazards related to various chemicals, load, power , heat sources/ tools as used in the processes, the hazards involved in the process operations and usage of PPEs
Skills (s) [optional]	
C. Core Skills/ Generic	**Writing and reading skills**

ASC/N0019: Managing the project delivery team as a team lead within the cross functional team

Skills	The user/ individual on the job needs to know and understand how to: SA1. document information from the manuals, discussion notes, process charts etc. SA2. create small notes/ work documents/ diagrams for team members to help them understand the process SA3. use emails and other business correspondence methods (internal memos, circular etc.) for communicating with other team members/ vendors/ suppliers etc. SA4. read internal information memos send by internal customers (other functions within the organization) SA5. articulate the thoughts in one's mind into the written format and communicate with the team members
	Oral Communication (Listening and Speaking skills)
	The user/individual on the job needs to know and understand how to: SA6. discuss task lists, schedules, and work-loads with the operative team members SA7. answer the queries raised by team as well as intercompany departments SA8. articulate the thoughts in one's mind into the written format and communicate with the team members SA9. effectively communicate with the team members and make them aware of work expectations, targets, policies, processes etc. SA10. attentively listen with full attention the queries and grievances raised by the team and comprehend the information given by the speaker
D. Professional Skills	**People Development**
	The user/individual on the job needs to know and understand how to: SB1. identify the strengths and weaknesses of the subordinate team members SB2. provide constructive and genuine feedback SB3. motivate the team to take independently responsibilities in their work areas SB4. provide training to team members for technical and behavioural areas SB5. create a culture of innovation and out of box thinking/ risk taken
	Team Leadership
	The user/individual on the job needs to know and understand how to: SB6. communicate effectively to the team members SB7. identify conflicts in the team and try to resolve them at the earliest SB8. interact and engage with the team members on a day to day basis SB9. counsel and coach the team members and help them resolve issues SB10. timely highlight to the management about any good work/ achievement by the team members SB11. display empathy for the problems faced by the team and act on the concerns
	Analytical Thinking and Problem Solving

ASC/N0019: Managing the project delivery team as a team lead within the cross functional team

	The user/individual on the job needs to know and understand how to: SB12. break the problem into smaller issues and tasks to arrive at a solution SB13. understand inter process relationship and establish relationship between various parts of the problem SB14. leverage experience to find effective solutions to problems SB15. use basic analytical tools to arrive at solutions SB16. develop alternate solutions and resolves problems in early stages SB17. work tireless in spite of repeat activities in a diligent manner to resolve problems on a day to day basis SB18. collaborate with cross functional teams to resolve problems
	Judgment and Critical Thinking
	The user/individual on the job needs to know and understand how to: SB19. use common sense and make judgments during day to day basis SB20. use reasoning skills to identify and resolve problems SB21. use intuition to detect any potential problems which could arise during operations SB22. critically analyse solutions/ recommendations shared by operatives and supervisors for implementation gather information skilfully from multiple sources SB23. analyse information in depth and identifies the problem in a timely manner
	Ownership
	The user/individual on the job needs to know and understand how to: SB24. accept additional responsibility for self and the team SB25. encourage self and other to take greater responsibilities SB26. ensure that the work allocated to the team is completed as per timelines and quality norms SB27. identify obstacles and bottlenecks in the process and on own find basic level solutions for removing these obstacles
	Team Work
	The user/individual on the job needs to know and understand how to: SB28. motivate and provide support for the team SB29. encourage collaboration between team members SB30. resolve team issues and grievances to manage conflicts within the team SB31. create an environment of approachability, trust and openness within the team SB32. ensure role clarity for all operators and helpers on the line/ shift SB33. escalate any team related issues to the concerned person at the right time
	Decision making
	The user/individual on the job needs to know and understand how to: SB34. use previous experience in resolving problems and taking decisions SB35. make timely and independent decisions on the line/ shift within the boundaries of the delegation matrix of the organization
	Collaboration

ASC/N0019: Managing the project delivery team as a team lead within the cross functional team

	The user/ individual on the job needs to know and understand how to: SB36. exhibit objectivity & openness to others' views SB37. collaborate with stakeholders to achieve the desired state of final result
	Out of Box thinking
	The user/ individual on the job needs to know and understand how to: SB38. familiarise with leading practices available in the market SB39. think independently on new approaches to manufacturing process, material management, data management and team management SB40. represent any new ideas/ approaches on process improvement and productivity improvement to the seniors in the team

NOS Version Control

NOS Code	**ASC/N0019**		
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Industry	**Automotive**	**Drafted on**	**10/1/2014**
Industry Sub-sector	**R&D**	**Last reviewed on**	**20/1/2014**
Occupation	**All**	**Next review date**	**20/1/2016**

ASC/N0020: Managing team on a day to day basis

National Occupational Standard

Overview

Managing team through employee engagement and communication

ASC/N0020: Managing team on a day to day basis

National Occupational Standard

Unit Code	ASC /N0020
Unit Title (Task)	**Managing team on a day to day basis**
Description	This OS unit is about managing the team of on day to day basis, ensuring their deployment, motivating them by involving them in various engagement initiatives helping them improve the skills levels and managing their grievances in the best possible manner in order to maximize the people productivity
Scope	The person is responsible for ensuring • Engaging the team through employee communication and employee engagement • Finalizing manpower deployment • Employee Performance Measurement and Employee Development • Ensuring the proper culture and facilities for R&D

Performance Criteria(PC) w.r.t. the Scope	
Element	**Performance Criteria**
Engaging the team through employee communication and employee engagement	PC1. Ensure engineer and team are aware of the job expectations on a monthly/weekly/daily basis PC2. Involve engineer and team for the daily work meeting/brain storming sessions / staff meetings to communicate information intended for them PC3. Ensure communication to team on any changes in policies/ processes by the organization through required verbal/ written mechanisms PC4. Ensure participation of employees in various engagement initiatives organized at the engineering centre and other place by the organization PC5. Involve engineer and team in TQM & Kaizen meets, Brainstorming sessions, safety drills etc. to increase their involvement in R&D operations PC6. Escalate issues to concerned staff in case of any issue related to team management and engagement
Finalizing manpower deployment	PC7. Finalize along with the engineer the shift planning and manpower deployment for the month/week as per the proposed development plan PC8. Ensure that the engineer maintains the information on leaves share the information with the concerned as and when required PC9. Ensure that the engineer identifies the skilled manpower for the process PC10. Ensure identification and deployment of right skilled people at the right places
Employee Performance Measurement and Employee Development	PC11. Ensure that the engineer tracks the daily performance of the team and note the achievement levels in an online IT enabled system PC12. Provide feedback to engineer pertaining to performance appraisals of team PC13. Ensure that the team is trained and are aware of the processes which need to be followed PC14. Other than technical trainings, support the team by delivering trainings related to quality and safety for them PC15. Drive a culture of creativity and innovation in the team by given the team members opportunity to think out of box and express their thoughts

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Ensuring the proper culture and facilities for R&D	PC16. Ensure that the engineer maintains a cordial and open culture in the team so that maximum new ideas are generated PC17. Ensure a culture of intelligent market benchmarking for different types of design and testing methodologies in the company PC18. Ensure development of effective design and test centres where different types of models could be build and tested to have maximum conversion of new ideas to product in a cost effective manner
Knowledge and Understanding (K)	
A. Organizational Context (Knowledge of the company / organization and its processes)	The user/individual on the job needs to know and understand: KA1. relevant standards and procedures followed in the company KA2. different types of products manufactured by the company KA3. quality management practices of the organization
B. Technical Knowledge	The user/individual on the job needs to know and understand: KA4. different types of R&D processes KA5. various grievance management tools available in the organization KA6. various problems solving tools like 7QC, Why Why Analysis, Brain storming KA7. different types of communication channels practiced by the organization KA8. the method of noting observations, maintaining records and sharing them with the concerned in the required format KA9. knowledge of shift roster norms and guidelines KA10. how and when to measure performance of the operators KA11. how to share feedback with team members
Skills (S) [Optional]	
A. Core Skills/ Generic Skills	**Writing and reading skills**
	The user/ individual on the job needs to know and understand how to: SA1. document information from the manuals, discussion notes, process charts etc. SA2. create small notes/ work documents/ diagrams for operators and helpers to help them understand the process SA3. use emails and other business correspondence methods (internal memos, circular etc.) for communicating with other team members/ vendors/ suppliers etc. SA4. read internal information memos send by internal customers (other functions within the organization)
	Oral Communication (Listening and Speaking skills)
	The user/individual on the job needs to know and understand how to: SA5. discuss task lists, schedules, and work-loads with the operative team members SA6. answer the queries raised by the operative team as well as intercompany departments SA7. effectively communicate with the operators and helpers and make them aware of work expectations, targets, policies, processes etc.

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	SA8. attentively listen with full attention the queries and grievances raised by the operative team and comprehend the information given by the speaker
B. Professional Skills	**People Development**
	The user/individual on the job needs to know and understand how to: SB1. identify the strengths and weaknesses of the subordinate team members (operators and helpers) SB2. provide constructive and genuine feedback SB3. motivate the team to take independently responsibilities in their work areas SB4. provide training to the operators and helpers for technical and behavioural areas
	Team Leadership
	The user/individual on the job needs to know and understand how to: SB5. communicate effectively to the team members SB6. identify conflicts in the team and try to resolve them at the earliest SB7. interact and engage with the team members on a day to day basis SB8. counsel and coach the operators and help them resolve issues SB9. timely highlight to the management about any good work/ achievement by the operators and helpers SB10. display empathy for the problems faced by the team and act on the concerns
	Analytical Thinking
	The user/individual on the job needs to know and understand how to: SB11. break the problem into smaller issues and tasks to arrive at a solution SB12. understand inter process relationship and establish relationship between various parts of the problem SB13. leverage experience to find effective solutions to problems SB14. use basic analytical tools to arrive at solutions SB15. **collaborate with cross functional teams to resolve problems**
	Judgment and Critical Thinking
	The user/individual on the job needs to know and understand how to: SB16. use common sense and make judgments during day to day basis SB17. use reasoning skills to identify and resolve problems SB18. use intuition to detect any potential problems which could arise during operations SB19. critically analyse solutions/ recommendations shared by operatives and supervisors for implementation
	Ownership
	The user/individual on the job needs to know and understand how to: SB20. accept additional responsibility for self and the team SB21. encourage self and other to take greater responsibilities SB22. ensure that the work allocated to the team is completed as per timelines and quality norms SB23. identify obstacles and bottlenecks in the process and on own find basic level solutions for removing these obstacles
	Team Work

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	The user/individual on the job needs to know and understand how to: SB24. motivate and provide support for the team SB25. encourage collaboration between team members SB26. resolve team issues and grievances to manage conflicts within the team SB27. create an environment of approachability, trust and openness within the team SB28. ensure role clarity for all operators and helpers on the line/ shift SB29. escalate any team related issues to the concerned person at the right time
	Decision making
	The user/individual on the job needs to know and understand how to: SB30. use previous experience in resolving problems and taking decisions SB31. make timely and independent decisions on the line/ shift within the boundaries of the delegation matrix of the organization

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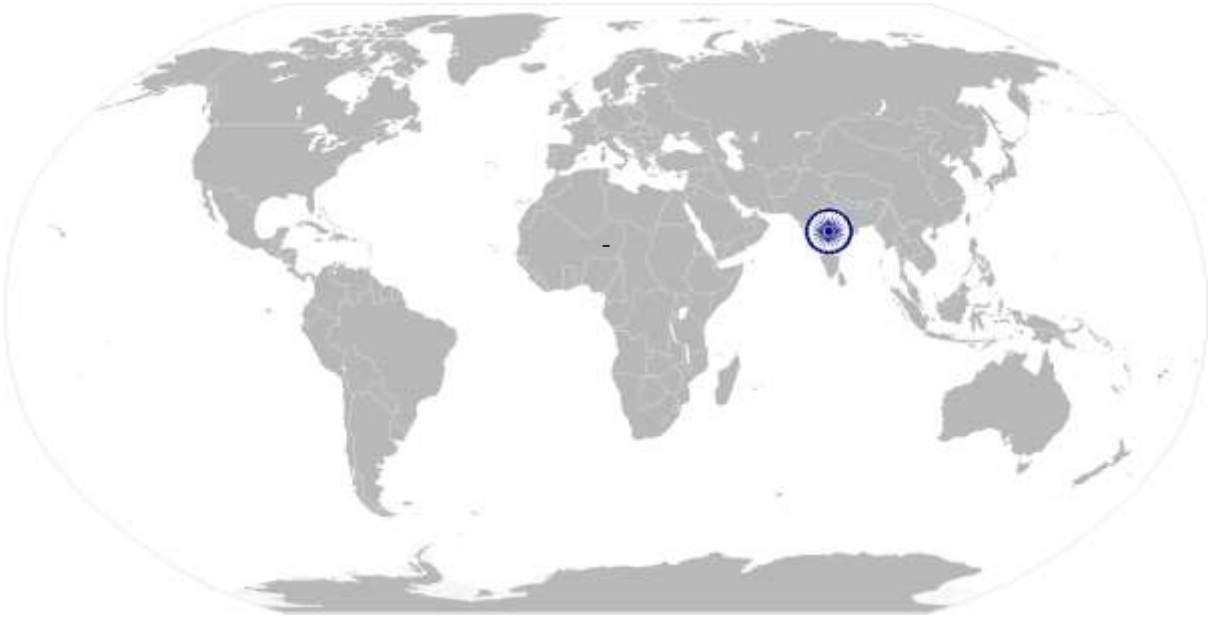
NOS Version Control

NOS Code	**ASC/N0020**		
Credits(NSQF)	**TBD**	**Version number**	**1**
Industry	**Automotive**	**Drafted on**	**16/12/2013**
Industry Sub-sector	**Research & Development**	**Last reviewed on**	**17/12/2013**
Occupation	**All**	**Next review date**	**17/12/2015**

National Occupational Standard



Overview

This unit is about maintaining a Safe and Healthy working environment

National Occupational Standard

ASC/N0006D: Maintain a Safe and Healthy working environment

Unit Code	ASC/N0006D
Unit Title (Task)	**Maintain a safe and healthy working environment at the work place**
Description	This NOS unit is about creating a Safe and Healthy work place, adhering to the safety guidelines in the working area, following practices which are not impacting the environment in a negative manner and training team members on health and safety related issues
Scope	The role holder will be responsible for: • identifying and reporting risks • creating and sustaining a safe, clean and environmental friendly work place This NOS will be applicable to all Automotive sector manufacturing job roles
Performance Criteria (PC) w.r.t. the Scope	
Element	**Performance Criteria**
Display awareness to the potential safety risks	PC1. Display understanding of the activities which can cause potential injury through sharp objects, burns, fall, electricity, gas leakages, radiation, poisonous fumes, chemicals ,loud noise PC2. Be aware of the areas in the plant/ lab/ R&D facility which are potentially hazardous/ unhygienic in nature PC3. Understand all risk involving hazardous areas near the work place that are marked/ tagged in order to caution the users of the work area/ machinery PC4. Attend awareness drives held amongst other on sharing information on the identified risks PC5. Attend periodic awareness sessions that are conducted
Display awareness towards maintaining a Safe, clean and environment friendly work place	PC6. Wear the recommended Personal Protective Equipment (PPE) and also ensure self-usage of the required PPEs when entering the plant/ lab/ R&D test lab premises PC7. Display awareness of the instructions given on the equipment manual describing the operating process of the equipment to prevent any hazard PC8. Be aware of the first aid safety kit at the work place/ lab location and the requisite items to respond to minor injuries PC9. Attend all safety and fire drills to be self-aware of safety hazards and preventive techniques and ensure that the team participate in all the required safety and fire drills PC10. Participate in all safety related initiatives like Safety Committee participations, Safety Day Celebrations etc. PC11. Maintain high standards of personal hygiene at the work place PC12. Inform the medical officer/ HR in case of self or an employee's illness of contagious nature so that preventive actions can be planned for others
Knowledge and Understanding (K) w.r.t. the scope	
Element	**Knowledge and Understanding**

ASC/N0006D: Maintain a Safe and Healthy working environment

A. Organizational Context (Knowledge of the company / organization and its processes)	The user/individual on the job needs to know and understand: KA1. relevant standards, procedures and policies related to Health, Safety and Environment followed in the company KA2. emergency handling procedures & hierarchy for escalation
B. Technical Knowledge	The user/individual on the job needs to know and understand: KB1. basic knowledge of Safety procedures(fire fighting, first aid) within the organization KB2. knowledge of various types of PPEs and their usage KB3. basic knowledge of risks/hazards associated with each occupation in the organization KB4. how to safely operate various tools and machines and risks associated with the tools/ equipment KB5. knowledge of personal hygiene and how an individual an contribute towards creating a highly safe and clean working environment
Skills (S) w.r.t. the scope	
Element	**Skills**
A. Core Skills/ Generic Skills	**Writing Skills**
	The user/ individual on the job needs to know and understand how to: SA1. write basic level notes and observations SA2. note down observations (if any) related to the process SA3. write information documents to internal departments/ internal teams
	Reading Skills
	The user/individual on the job needs to know and understand how to: SA4. read safety instructions put up across the plant premises SA5. read safety precautions mentioned in equipment manuals and panels to understand the potential risks associated
	Oral Communication (Listening and Speaking skills)
	The user/individual on the job needs to know and understand how to: SA6. effectively communicate information to team members SA7. inform employees in the plant and concerned functions about SA8. events, incidents & potential risks observed related to Safety, Health and Environment. SA9. question the process head/ safety team in order to understand the safety related issues SA10. attentively listen with full attention and comprehend the SA11. information given by the speaker during safety drills and training programs
B. Professional Skills	**Judgmental Thinking**
	The user/individual on the job needs to know and understand how to: SB1. use common sense and make judgments during day to day basis SB2. use reasoning skills to identify and resolve basic problems
	Persuasion skills

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	The user/ individual on the jobs needs to know and understand how to: SB3. persuade team members to wear Personal Protective Equipment as per requirement SB4. ensure that the team understands the importance of using various machines and equipment without creating any risk to human/ machine SB5. train team members on various risks identified
	Analytical Thinking
	The user/individual on the job needs to know and understand how to: SB6. break the problem into smaller issues and tasks to arrive at a solution SB7. understand inter process relationship and establish relationship between various parts of the problem SB8. leverage experience to find effective solutions to problems SB9. use basic analytical tools to arrive at solutions

NOS Version Control

NOS Code	**ASC/N0006D**		
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Industry	**Automotive**	**Drafted on**	**10/01/2014**
Industry Sub-sector	**R&D**	**Last reviewed on**	**20/01/2014**
Occupation	**All**	**Next review date**	**20/01/2016**