



Learning Outcomes

of the qualification
“Master Craftsperson in motor vehicle technology”

Germany

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Education and Culture DG

Lifelong Learning Programme

Master motor vehicle engineer

Title of qualification	Master motor vehicle engineer (m/f)	
EQF level	6	
Units of learning outcomes	U1	Order processing and time planning
	U2	Service and maintenance
	U3	Servicing, repair and retrofitting
	U4	Diagnosis
	U5	Testing, final inspection and vehicle handover
	U6	Organising HR processes and managing staff
	U7	Organising training in a skilled craft enterprise
	U8	Foundation, management and organisation of skilled craft enterprises
	U9	Costing, evaluating, checking and documenting company work processes and services as well as safeguarding the company's liquidity
	U10	Marketing, customer acquisition and loyalty
Cross-curricular learning outcomes	He/she is able to <ul style="list-style-type: none"> • to act with social and ecological responsibility, • to adopt a quality management, • to use information and communication technology. 	



Unit 1	Order processing and time planning	
He/she is able to accept vehicles, prepare customer orders and manage the implementation of job orders.		
Knowledge	Skills	Competence
<p>He/she is able</p> <ul style="list-style-type: none"> • to distinguish between different cases of damage. • to identify different information channels. • to reproduce the repair conditions for motor vehicles. • to name the vehicle manufacturers' specifications. • to assign the specifications for guarantee, fair dealing and warranty. • to explain the processes involved in order processing. 	<p>He/she is able</p> <ul style="list-style-type: none"> • to accept vehicles in consultation with customers. • to communicate with customers. • to collect vehicle data. • to create customer orders by using sector-specific computer systems. • to search for repair data and information. • to calculate costs. • to use the specified documents and establish the facts. • to contract third-party services. • to delegate the implementation of the work and manage job orders. 	<p>He/she is able</p> <ul style="list-style-type: none"> • to specify customer orders jointly with customers. In this context, observe the legal, technical and organisational specifications. • to plan and initiate order processing, taking into consideration the staff-related, equipment-related and economic conditions.



Unit 2	Service and maintenance	
He/she is able to carry out service and maintenance tasks, taking into account specifications, evaluate the prepared documents and check the executed tasks.		
Knowledge	Skills	Competence
<p>He/she is able</p> <ul style="list-style-type: none"> to name service and maintenance specifications. to assign the documents required for service and maintenance. to describe the function of vehicle components, units and systems. to explain the places that pose a threat to health and safety when disassembling and assembling vehicle components. to assign the various pieces of measurement and testing equipment and describe their working principles. 	<p>He/she is able</p> <ul style="list-style-type: none"> to apply service and maintenance specifications and draw up plans. to fill in the documents required for service and maintenance. He/she is able to assign the components and units to a vehicle system. to disassemble and assemble components, taking into account the manufacturer-specific specifications. to use the various measurement and testing equipment and issue measuring and test reports. to evaluate the required documents and check the executed tasks. 	<p>He/she is able</p> <ul style="list-style-type: none"> to delegate the service and maintenance tasks taking into account specifications. to determine the inspection requirements. to evaluate measuring and test reports and check the executed tasks by using checklists.



Unit 3	Servicing, repair and retrofitting	
He/she is able to service and repair vehicles and retrofit individual vehicle systems.		
Knowledge	Skills	Competence
<p>He/she is able</p> <ul style="list-style-type: none"> to describe the function of vehicle components, units and systems. to explain the components' characteristic data and designations. to interpret information and data for servicing, repair and retrofitting. to demonstrate the procurement of spare parts and accessories. 	<p>He/she is able</p> <ul style="list-style-type: none"> to identify vehicle components, units and systems. to obtain information for servicing, repair and retrofitting. to plan individual work operations for servicing, repair and retrofitting. to disassemble and assemble vehicle components, units and systems. to test the mode of operation of components, units and systems. to give advice to customers regarding the retrofitting of additional vehicle systems. to procure spare parts and accessories and calculate costs. to demonstrate alternative repair methods. 	<p>He/she is able</p> <ul style="list-style-type: none"> to independently search for information by using sector-specific tools. to identify the individual components, units and systems. to disassemble the components and units to be replaced, to test their function and to re-assembles them. to convert vehicles following a customer advisory talk and to retrofit new additional systems.



Unit 4	Diagnosis	
He/she is able to carry out a diagnosis on vehicles and their associated systems.		
Knowledge	Skills	Competence
<p>He/she is able</p> <ul style="list-style-type: none"> • to explain the different pieces of measurement, testing and diagnostic equipment and describe their working principles. • to distinguish between different vehicle systems. • to demonstrate standard diagnostic routines. • to describe various types of damage and malfunctions. • to explain common diagnostic systems and expert systems. • to demonstrate guided trouble-shooting, the working principle of databases, telediagnosis and the hotline. • to explain how test reports are written. 	<p>He/she is able</p> <ul style="list-style-type: none"> • to operate the different measurement, testing and diagnostic equipment, read out error memories and use trouble-shooting programmes. • to assess diagnostic requirements and analyse and identify faults and malfunctions by using different measurement, testing and diagnostic equipment. • to search for information related to diagnosis. • to read switching, connection and functional diagrams for diagnostic work. • to draw up and evaluate diagnostic reports and issue further instructions regarding maintenance and servicing. • to assess the diagnostic results and suggest repair methods and repair alternatives. • to identify and update the current version of the software of control units. 	<p>He/she is able</p> <ul style="list-style-type: none"> • to evaluate the diagnostic results obtained. • to search for faults and malfunctions and their causes in a targeted manner by using sector-specific diagnostic equipment and specify the further repair methods.



Unit 5	Testing, final inspection and vehicle handover	
He/she is able to inspect vehicles, carry out a final inspection and hand over the vehicles to customers.		
Knowledge	Skills	Competence
<p>He/she is able</p> <ul style="list-style-type: none"> to demonstrate the current inspection and testing specifications. to describe the documents, checklists and specification standards in the sector. to explain technical circumstances and facts to the customer. to present concepts concerning the quality of work and demonstrate quality management systems. to describe operating sequences for operational recall measures or measures related to subsequent improvement. 	<p>He/she is able</p> <ul style="list-style-type: none"> to prepare vehicle inspections stipulated by law. to inspect the vehicles' road safety and operational safety, document deficiencies and take the measures required to remedy them. to determine actual values and compare them with desired values. to check executed tasks, document results, prompt subsequent improvement and conduct final costing. to apply the specifications to assure the quality of work. to hold talks with customers that are appropriate to the situation at hand, state reasons for technical circumstances and facts, resolve problem cases and accept complaints. to hand over the vehicle to customers, explain the invoice and relevant documents connected to quality assurance. 	<p>He/she is able</p> <ul style="list-style-type: none"> to inspect vehicles and their components, units and systems, taking into account technical and legal specifications, and take repair and servicing measures. to analyse and check the work operations conducted by others and the work performed by others. to hand over vehicles to the customer and explain the issued invoice. to accept complaints and take first steps for subsequent improvement.



Unit 6	Organising HR processes and managing staff	
He/she is able to plan and prepare HR processes in the company.		
Knowledge	Skills	Competence
<p>He/she is able</p> <ul style="list-style-type: none"> to explain the importance of HR activities in relation to the company's service provision processes. to describe the quantitative and qualitative methods to determine the need for staff. 	<p>He/she is able</p> <ul style="list-style-type: none"> to analyse employment structures. to determine the company's quantitative and qualitative need for staff. to prepare a staffing schedule. to conduct succession planning and career planning. 	<p>He/she is able</p> <ul style="list-style-type: none"> to determine the needs and requirements for the company's human resources and conduct medium- and long-term staff planning.
He/she is able to recruit and provide staff.		
Knowledge	Skills	Competence
<p>He/she is able</p> <ul style="list-style-type: none"> to describe in-house and external recruitment. to name methods and criteria of staff selection. to describe legal aspects of staff recruitment and staffing. 	<p>He/she is able</p> <ul style="list-style-type: none"> to conduct in-house and external staffing procedures. to apply methods of staff and candidate selection. to carry out staff replacement measures, particularly preparing employment contracts and negotiating them. 	<p>He/she is able</p> <ul style="list-style-type: none"> to provide and recruit staff and prepare them for future tasks taking legal, economic and psychological aspects into account.



He/she is able to employ and manage staff.		
Knowledge	Skills	Competence
<p>He/she is able</p> <ul style="list-style-type: none"> to describe motivational and legal foundations of personnel administration and management. to name forms of wages. to describe different compensation systems. to describe functions and types of employee files. 	<p>He/she is able</p> <ul style="list-style-type: none"> to lead and motivate staff responsibly and fulfil related duties of care. to resolve staff conflict. to prepare and conduct HR development measures. to conduct measures of workplace design. to maintain paper documents and files on employees and prepare wage and salary accounting. 	<p>He/she is able</p> <ul style="list-style-type: none"> to employ, manage and lead staff taking into account legal, operational and motivational aspects.
He/she is able to monitor, measure and assess HR processes.		
Knowledge	Skills	Competence
<p>He/she is able</p> <ul style="list-style-type: none"> to describe methods and functions of personnel controlling. to describe types and functions of HR information systems. 	<p>He/she is able</p> <ul style="list-style-type: none"> to analyse personnel cost structures. to apply methods of job assessment. to determine and assess key personnel figures using HR information systems. to draw up and evaluate staff statistics. 	<p>He/she is able</p> <ul style="list-style-type: none"> to analyse and assess HR processes on the basis of complex information and manage them taking into account the company's and external interests and objectives.



Unit 7	Organising training in a skilled craft enterprise	
He/she is able to plan and prepare training in a skilled craft enterprise.		
Knowledge	Skills	Competence
<p>He/she is able</p> <ul style="list-style-type: none"> to describe the structures of the vocational education and training system, particularly the dual training system. to name relevant legal provisions and framework conditions laid down by collective agreements concerning the training of young people. to describe the content of the training occupations provided at the company. 	<p>He/she is able</p> <ul style="list-style-type: none"> to examine the company's suitability for providing training in the envisaged qualifications. to plan the company's training requirements. to select the training occupations suited for the company. 	<p>He/she is able</p> <ul style="list-style-type: none"> to draw up a corporate training plan that is oriented towards work and business processes that are typical for the occupation.
He/she is able to examine the training requirements of young people and to recruit apprentices.		
Knowledge	Skills	Competence
<p>He/she is able</p> <ul style="list-style-type: none"> to name the relevant legal provisions and framework conditions laid down by collective agreements concerning the training of young people. 	<p>He/she is able</p> <ul style="list-style-type: none"> to apply suitable procedures to select applicants. to prepare a training contract and initiates its registration with the competent body. 	<p>He/she is able</p> <ul style="list-style-type: none"> to recruit apprentices independently.



He/she is able to conduct training in a skilled craft enterprise.		
Knowledge	Skills	Competence
<p>He/she knows</p> <ul style="list-style-type: none"> the relevant legal provisions and framework conditions laid down by collective agreements concerning the training of young people. the rights of the in-company representation of interests. 	<p>He/she is able</p> <ul style="list-style-type: none"> to teach fundamental work techniques as well as knowledge, skills and competence typical for the occupation on the basis of the corporate training plan. to encourage and to promote the acquisition of key skills. to check learning tasks, exercises and work assignments. to resolve conflicts with or among apprentices. to conduct performance appraisals, to prepare apprentices for exams and to prepare work references. 	<p>He/she is able</p> <ul style="list-style-type: none"> to organise the training in a skilled craft enterprise and to coordinate the tasks of those involved in the training taking into account their functions and qualifications. to promote the job-related, social and personal development of apprentices. In this context, he/she is able to demonstrate his/her particular responsibility for the young people's specific needs.

Unit 8	Foundation, management and organisation of skilled craft enterprises	
He/she is able to organise and manage a skilled craft enterprise as well as carry out the tasks of founding and taking over a skilled craft enterprise and assessing their results.		
Knowledge	Skills	Competence
<p>He/she knows</p> <ul style="list-style-type: none"> • about characteristics and sub-aspects of business organisation, i.e. the operational structure, administrative and office organisation as well as organisational structure. • the backgrounds, stages and instruments of corporate planning. <p>He/she</p> <ul style="list-style-type: none"> • to demonstrate appropriate offers of start-up counselling and support. 	<p>He/she is able</p> <ul style="list-style-type: none"> • to fulfil tasks of corporate leadership and organisation. • to monitor and improves the quality of the company's service provision. • to structure inter-company cooperation on the basis of organisational aspects. • to state reasons for decisions regarding the location, company size as well as the facilities and equipment of a company. 	<p>He/she is able</p> <ul style="list-style-type: none"> • to manage a skilled craft enterprise independently and for this purpose meets management tasks in technology, business administration, HR management and development. • to adjust independently his/her job-related capacity according to new needs in these fields.



Unit 9	Costing, evaluating, checking and documenting company work processes and services as well as safeguarding the company's liquidity	
He/she is able to identify and document corporate value streams and values.		
Knowledge	Skills	Competence
He/she is able <ul style="list-style-type: none"> • to name the tasks and relevant legal regulations concerning double-entry bookkeeping. • to describe the accounting principles. 	He/she is able <ul style="list-style-type: none"> • to create a profit and loss statement. • to conduct an inventory valuation, make write-downs, make provisions and transfer them onto a balance sheet. 	He/she is able <ul style="list-style-type: none"> • to apply the system of double-entry bookkeeping, accounting principles and relevant legal provisions by using software solutions.
He/she is able to draw up, analyse and assess a financial statement.		
Knowledge	Skills	Competence
He/she is able <ul style="list-style-type: none"> • to name the valuation principles to draw up financial statements. • to describe the key performance indicators concerning the asset and capital structure, liquidity, asset coverage, profitability and cash-flow. 	He/she is able <ul style="list-style-type: none"> • to prepare accounting and reporting documents, particularly stock-taking, inventory, profit and loss account, and the financial statement taking into account legal provisions. 	He/she is able <ul style="list-style-type: none"> • to make assessment decisions and balance sheets taking into account internal and external interests and applicable valuation provisions on the basis of KPIs.

He/she is able to analyse, assess and control the value-creation chain and carry out the costing of services.		
Knowledge	Skills	Competence
<p>He/she is able</p> <ul style="list-style-type: none"> to describe the three steps of costing. to name the methods and instruments of full-costing, marginal costing and activity-based costing. 	<p>He/she is able</p> <ul style="list-style-type: none"> to plan and carry out checks and reduce the effects of any deviations. to use information from in-house and external accounting for controlling purposes. to use controlling systems, particularly cost and activity accounting, to analyse cost structures and the cost situation. to calculate the prices of products and services. 	<p>He/she is able</p> <ul style="list-style-type: none"> to monitor and assess corporate processes, carry out costing of company services and take medium- and long-term decisions on process control.
He/she is able to safeguard the company's liquidity.		
Knowledge	Skills	Competence
<p>He/she is able</p> <ul style="list-style-type: none"> to name types of financing for the company's requirements, such as equity financing, self-financing and debt financing, leasing as well as types of public financing and subsidisation. 	<p>He/she is able</p> <ul style="list-style-type: none"> to determine the company's investment and capital requirements. 	<p>He/she is able</p> <ul style="list-style-type: none"> to select types of financing that are geared towards the company's needs and requirements.



Unit 10	Marketing, customer acquisition and loyalty	
He/she is able to market services and products by applying suitable concepts and conduct measures to ensure customer loyalty.		
Knowledge	Skills	Competence
<p>He/she knows</p> <ul style="list-style-type: none"> • methods and subjects of market analysis. • marketing functions and instruments on the sale and procurement side. • marketing measures to care for existing customers and acquire new ones. <p>He/she is able</p> <ul style="list-style-type: none"> • to present options of procurement marketing. 	<p>He/she is able</p> <ul style="list-style-type: none"> • to state reasons for the application of sales market-related marketing instruments and to demonstrate measures to ensure customer acquisition and loyalty. 	<p>He/she is able</p> <ul style="list-style-type: none"> • to assess marketing concepts for their suitability for attaining strategic objectives and to select marketing measures for market launch in a well-founded manner.