

In ECVET for transparency
and recognition of learning
the outcomes and qualifications in
"integrated health care logistics"
middle



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In the Middle

ECVET for transparency and recognition of learning outcomes and qualifications in "integrated health care logistics"

Info Pack 3: Design of European professional figures in integrated health care logistics

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The In the Middle partners have shared a common approach to organise the activities of work package 4, aimed to design the European professional figures in the integrated health care logistics sector, starting from the perimeter of professional figures identified in a shared way by the partners across VET systems of participating countries during WP 2 activities (professional figures classified within the EQF level 5 and lower).

According to this articulation of the competences of concerned professional figures, the partners have proceeded with the shared definition of activities, tasks, skills, knowledge, competences and ECVET credits for each one of these main competence areas, by means of a common tool specifically elaborated for this aim.

Utilising this common tool, the partners have designed both the European common, and the specific territorial competence areas.

In the following pages are presented the professional figures as design by the partners, articulated following the three main competence areas.

EQF LEVEL	5
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LEARNING OUTCOME	Pharmaceutical Logistics	ECVET Credits (ULO)		
Learning outcome unit 1	Pharmaceutical contract logistics services management	ECVET Credits (ULO parts)		
Activity area				
ACTIVITIES	TASKS	KNOWLEDGE	SKILLS	COMPETENCE
Pharmaceutical contract logistics services management	<ul style="list-style-type: none"> ✓ Analyze the contract, define and plan the activities ✓ Evaluate the economic sides of the contract in relation to the order ✓ Manage the order's budget ✓ Control, plan and manage of the costs ✓ Evaluate the productivity and profitability indexes of the order ✓ Propose functional improvements ✓ Compile the appropriate forms ✓ Control the performance of SLA (Service Level Agreement) and KPI (Key Performance Indicators) 	<ul style="list-style-type: none"> – Identify the relevant legislation and procedures applied to the procurement process, and different kind and characteristics of relevant agreements, including contracts, memoranda of understanding / memoranda of agreement, in house option directives, common use arrangements / standing offers, inter / intra-government agreements, letters of intent, licensing. – Collect the contract management strategy principles, techniques and tools, including for formal contract management planning, routines setting up, quality assurance systems (based on SLA - Service Level Agreement and KPI - Key Performance Indicators) checking,, transfer of legal responsibility, insurances, avoiding the implied acceptance of varied conditions through non-enforcement of contractual obligations – Define the communication strategy principles, techniques and tools, including for ensuring information flow at critical stages of the contract, and for setting regular times to talk, meet or check on progress, included protocols 	<ul style="list-style-type: none"> – Describe the different contents of a contract management strategy, ensuring re-confirmation of contract requirements with parties, effective communication and information, confirmation / implementation of start up or transition arrangements, as well as documentation and monitoring for effectiveness of the management strategy and for its adaptation as necessary during the life of the contract. – Distinguish the different stages of contracting procedure: managing relationship with contractor in accordance with organisational policy and procedures; monitoring the performance of the contract against performance indicators to ensure all obligations under the agreement are being met and that obligations to the contractor are met in accordance with contractual arrangements; identifying and managing emerging and potential risks accordance with organisational risk management procedures; managing the contract variations in 	<ul style="list-style-type: none"> – Establish a contract management strategy. – Revise and apply contracting procedure. – Prepare and implement contract strategy

		<p>for dealing with other stakeholders, emergency contact arrangements, diary system to monitor milestones, timeframes, receipt of deliverables, etc.</p> <ul style="list-style-type: none"> - Identify different kind and characteristics of relevant risks, like suppliers' inability to meet agreements, end user or buyers' inability to meet obligations, limited number of suppliers. - Identify different kind and characteristics of relevant disputes: disputes over requirements, delivery schedules, price changes, additional tasking, payment schedules, complaints may be from third parties. - Collect techniques to resolve disputes, including conference, negotiation, mediation, arbitration, resort to contractual agreements, legal considerations. - Collect techniques to support negotiation on relevant issues, including contract variations, continuous improvement, innovations, non-compliance consequences - Describe different kind and characteristics of variations to agreements, including them arising from change of scope, negotiation of new terms and conditions, dissolution of contracts. - Select techniques and tools for organisational purposes documentation including relevant details extracted, collated and arranged in a format for reports and other documents. - Identify principles, techniques and tools for the evaluation of the procurement activity, including planning process and evaluation at each stage of the procurement, sources and methods of gathering data, role of audit trails, 	<p>accordance with the contract and organisational policy and procedures; investigating and resolving or referring disputes / complaints in accordance with contractual requirements; ensuring that negotiation of issues relating to the contract occurs and approvals are obtained in accordance with stipulations in the contract proper; maintaining communication on the performance of the contract with all stakeholders in accordance with organisational protocols and sectoral standards; and maintaining contract information is for organisational purposes in accordance with organisational policy and procedures.</p> <ul style="list-style-type: none"> - Differentiate how complete contracts and how implement contract review strategy: finalising; cancelling or terminating contracts in accordance with contractual arrangements; ensuring that strategies to manage close-out, renewal of the contract or transition to a new contract meet organisational guidelines and public sector standards; reviewing contract management, supplier performance relevant to measures at each stage of the contract, user satisfaction and audit results; documenting and explaining variances where measures or outcomes are not met in full; using information from the audit and review to report on provider performance, to review contract management practice and to make recommendations for improvement. - Give answer immediately and efficiently when there is a problem, delay, and malfunction in the correct 	
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		<p>measuring outputs meeting client needs, innovation, strategies for continuous improvement.</p> <ul style="list-style-type: none"> - Collect techniques, methodologies and tools in order to identify and analyze problems, define possible solutions , choose the best solution (problem setting, problem solving and decision making) 	service/contract delivery.	
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Learning outcome unit 2	Pharmaceutical Logistics Organisation And Management	ECVET Credits (ULO parts)		
Activity area				
ACTIVITIES	TASKS	KNOWLEDGE	SKILLS	COMPETENCE
Pharmaceutical Logistics Organisation And Management	<ul style="list-style-type: none"> ✓ Plan, organize and control pharmaceutical logistics operations ✓ Check the resources supply for the site/contract ✓ Implement and review risk management processes ✓ Work with documents, plans, budgets, templates, etc. ✓ Prepare reports according of the internal rules and regulations about pharmaceutical logistics operations 	<ul style="list-style-type: none"> - Collect information about the chain supply: <ul style="list-style-type: none"> • Sources of information • How it operates • How supplies are moved through the supply chain • Systems and procedures for operating in the supply chain • Products, materials, and services that comprise supplies • Types of supply chains • Needs of the different customers - Identify the Legislation and regulations relating to pharmaceutical, safety, and logistics operations. - Understand the nature of reverse logistics. - Be aware of the regulatory trend requiring firms to develop reverse logistics processes that ensure proper end-of-life management. - Recognize the sources of information on legislation and regulations. - Identify the regulatory bodies and their compliance requirements. 	<ul style="list-style-type: none"> - Analyze the suitable sources of information on the supply chain that are relevant to the organisation and its customers; identifying the features and characteristics of the supplies flowing through the supply chain; identifying the available transport modes and routes used, and the way supplies need to be stored; identifying any potential opportunities for the organisation arising from changes in the supply chain and obtaining information on the current legislation and regulations that apply to pharmaceutical logistics operations in the supply chain. - Differentiate the specific requirements of customers in the supply chain and apply logistics operations to meet the requirements of customers in the supply chain. - Analyze the activities of the main organisations operating in the supply chain; monitoring changes and developments to the supply chain that could have an effect on 	<ul style="list-style-type: none"> - Plan, apply and asses the pharmaceutical logistics operations working with the appropriate documents, plans, budgets, templates, etc. - Consider the costs and benefits of potential actions to choose the most appropriate one. - Use the resources supply for the site/contract. - Produce risk management processes. - Prepare reports according of the internal rules and regulations.

		<ul style="list-style-type: none"> - Define the roles, responsibilities, and management systems. - Describe working practices, operating procedures, guidelines, and codes of practice. - Define the Quality assurance procedures. - Collect information systems and communication methods used by the organisation. - Identify the types of resources used in specific pharmaceutical logistics operations, the factors that could affect the use of resources and the types of problem associated with the use of different types of resources. - Collect methods for optimising resources; - Identify the advantages and disadvantages of different transport modes. - Select the types of vehicles used in different transport modes. - List the major routes, transport hubs, and destinations. - Define the geography of routes and destinations. - Select the equipment and systems that are available and latest technological advances. - Define the implications of changes in technology. - Identify the licensing of technology. 	<p>pharmaceutical logistics operations and reporting work activities and record them in the appropriate information systems according to organisational procedures.</p> <ul style="list-style-type: none"> - Describe the availability and demand for pharmaceutical logistics resources in the organisation, as well as all relevant factors that could affect the use of the logistics resources and ways of improving or developing the logistics resources used in pharmaceutical logistics operations, determining how the pharmaceutical logistics resources could be used more effectively and efficiently. - Priority the use of pharmaceutical logistics resources to achieve the most suitable balance of usage and performance, complying with all relevant work and safety legislation, regulations, standards, and organisational procedures. - Explain how pharmaceutical logistics resources could be used more effectively with all the relevant people. - Analyze the use of logistics resources to identify any positive or negative effects on the delivery of pharmaceutical logistics operations, assessing the level and type of logistics resources used for the pharmaceutical logistics operations being undertaken and reporting work activities and record them in the appropriate information systems according to organisational procedures. - Describe the main transport modes and transportation routes used to deliver the supplies to their 	
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			<p>destination, as well as any factors that affect the transportation of the supplies.</p> <ul style="list-style-type: none"> - Classify the most suitable transport modes to enable supplies to reach their destination according to the organisation's requirements and coordinate logistics resources to work effectively with the selected transport modes, complying with all relevant work and safety legislation, regulations, standards, and organisational procedures. - Explain the data that is required to use the transport modes is processed correctly, reviewing the nature of the supplies being handled in the pharmaceutical logistics operations and reporting work activities and record them in the appropriate information systems according to organisational procedures. - Give ways in which the technology has improved pharmaceutical logistics operations, and recommend any further potential improvements, as well as any issues arising from the use of the technology and take the appropriate action to respond to them. - Priority any training needs associated with the use of the technology. - Distinguish if technology is applied efficiently and effectively during pharmaceutical logistics operations, following specified maintenance schedules according to manufacturers' and organisational procedures, devising effective ways of responding to failures in the technology and complying with all relevant work and safety legislation, regulations, standards, and 	
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			<p>organisational procedures.</p> <ul style="list-style-type: none"> - Analyze colleagues to ensure that the technology is used safely in a way that is approved by the organisation, checking that colleagues using the technology understand its use and are competent in its operation, and report work activities and record them in the appropriate information systems according to organisational procedures. 	
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Learning outcome unit 3	Quality System Management	ECVET Credits (ULO parts)		
Activity area				
ACTIVITIES	TASKS	KNOWLEDGE	SKILLS	COMPETENCE
Quality System Management	<ul style="list-style-type: none"> ✓ Promote activities in accordance with the laws, regulations, and organizational procedures. ✓ Improve the quality of services. 	<ul style="list-style-type: none"> - Define Quality assurance procedures. - Collect information about: <ul style="list-style-type: none"> • Methods of monitoring developments in legislation and regulations. • Legislation and regulations relating to pharmaceutical, safety, and logistics operations. • Sources of information on legislation and regulations. • Regulatory bodies and their compliance requirements. - Define roles, responsibilities, and management systems. - Describe working practices, operating procedures, guidelines, and codes of practice. - Select information systems and communication methods used by the organisation. - Recognize ways of identifying non-compliance; implications of not complying with legislation and regulations. - Identify people responsible for 	<ul style="list-style-type: none"> - Analyze information from suitable sources on the current legislation and regulations that apply to the pharmaceutical logistics operations being undertaken, monitoring changes and developments in legislation and regulations that could have an effect on pharmaceutical logistics operations being undertaken, and confirming organisational procedures for the pharmaceutical logistics operations being undertaken. - Explain to colleagues the content and meaning of current legislation and regulations in a way that they are likely to understand, and inform all relevant people of any changes to regulations and organisational procedures that could affect them. - Monitor the work activities of colleagues and the use of equipment to ensure that regulations and organisational procedures are followed. - Identify any problems with 	<ul style="list-style-type: none"> - Apply all the procedures to ensure the implementation of the Quality System. - Use all the necessary resources (material and human) to guarantee the implementation of the Quality System. - Assess the implementation of the Quality System: identifying improving areas, proposing new actions... - Plan and implement a proper system of risk management, reduce the margin of error and thus ensure the achievement of the expected results.

		<p>complying with legislation and regulations.</p> <ul style="list-style-type: none"> - Collect sources of information on improvement methods. - Examine improvement approaches and methods that are used in industry. - Define improvement methods used in the organisation; methods for evaluating improvement methods; advantages and disadvantages of different methods. - Identify risks that could affect to the Quality management. 	<p>compliance, and take the appropriate action to deal with them, and recommend improvements to the way the organisation complies with legislation and regulations.</p> <ul style="list-style-type: none"> - Report work activities and record them in the appropriate information systems according to organisational procedures. - Give valid and reliable information on the performance of pharmaceutical logistics operations, identifying potential areas for improvement, and agree with colleagues the need for improving them. - Give potential improvement methods that would be appropriate for the organisation and its logistics operations and select and apply the most suitable improvement methods for improving the quality of pharmaceutical logistics operations. - Identify the success criteria that can be used to evaluate the effect of applying the improvement methods, monitoring the effects of applying the improvement methods over a suitable period of time, evaluating the effect on quality of applying the improvement methods, identifying any problems with applying improvement methods, and taking the appropriate action to deal with them. - Report work activities and record them in the appropriate information systems according to organisational procedures. - Interpret all relevant work and safety legislation, regulations, standards, and organisational procedures. 	
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Learning outcome unit 4	Occupational Safety and Health Management	ECVET Credits (ULO parts)		
Activity area				
ACTIVITIES	TASKS	KNOWLEDGE	SKILLS	COMPETENCE
OSH Management	<ul style="list-style-type: none"> ✓ Promote and maintain the health, safety and hygiene during the pharmaceutical logistic operations. ✓ Monitor the environmental impact of the activities carried out. ✓ Develop emergency plans for the movement operations. ✓ Handle the contingencies during the services' execution. ✓ Promote inspections on legality issues during the construction site's activities. 	<ul style="list-style-type: none"> - Identify sources of information on changes to pharmaceutical, safety, and security legislation and regulations. - Collect information about: <ul style="list-style-type: none"> • Legislation, regulations, and organisational procedures that apply to health and safety in the workplace. • Legislation and regulations relating to different types of logistics operations. • Regulatory bodies and their compliance requirements. - Define roles, responsibilities, and management systems. - Describe working practices, operating procedures, guidelines, and codes of practice. - Select information systems and communication methods used by the organisation. - Define responsibilities of all workers for pharmaceutical, safety, and security. - Identify specific role responsibilities of colleagues for pharmaceutical, safety, and security. - Collect risk assessment methods. - Select personal protective equipment that should be used for different pharmaceutical logistics activities, and how to use it correctly. - Describe instructions for safely using different types of equipment, and who should issue them. - Identify types of pharmaceutical, 	<ul style="list-style-type: none"> - Interpret regulations and organisational procedures for pharmaceutical, safety, and security at all times, and monitor changes in pharmaceutical, safety, and security regulations and guidelines, implementing their requirements. - Priority risks to the health, safety, and security of self and others when undertaking pharmaceutical logistics operations are assessed according to organisational guidelines, monitoring the work of colleagues to ensure that safe working practices are followed at all times, ensuring that personal protective equipment is used correctly and that manufacturers' and other relevant instructions relating to the safe use of equipment are followed. - Give visitors to the work area the information about safety, and security procedures, and prevent unauthorised access to restricted areas. - Analyze promptly any health and safety hazards and security issues, taking immediate action to prevent injury, theft, or damage, and giving priority to the protection of people over organisational performance, and responding to incidents affecting health, safety, and security by using the appropriate safety equipment and carrying out the safety 	<ul style="list-style-type: none"> - Apply all the procedures to ensure the implementation of the Occupational Safety and Pharmaceutical Management. - Use all the necessary resources (material and human) to guarantee the implementation of the Occupational Safety and Pharmaceutical Management. - Asses the implementation of the Occupational Safety and Pharmaceutical Management: identifying legislations, updating emergency plans...

		<p>safety, and security incident that could occur.</p> <ul style="list-style-type: none"> - Collect safety equipment and procedures that should be used with different types of accident or emergency. - Describe accident and emergency procedures of the organisation, including individual roles and responsibilities. - Show location of the approved escape routes. - Outline alarm systems and procedures for contacting the emergency services. - Define legal responsibilities for reporting accidents and emergencies. - Record accidents and emergencies. - Define safety measures that should be undertaken for visitors attending the workplace. - Identify types of contingency that can occur with different pharmaceutical logistics operations. - Describe factors that could lead to contingencies. - Define contingency planning methods. - Recognize risk assessment methods that are used. - Write how to resolve typical contingencies. - Show typical signs and indications of emerging contingencies. - Describe problem solving and investigation methods. - Define who should be informed when contingencies occur. - Describe types of opportunity that can arise from contingencies. - Recognize quality assurance procedures. 	<p>procedures specified by the organisation.</p> <ul style="list-style-type: none"> - Distinguish the appropriate electronic or manual information systems to report accidents and emergencies. - Identify the activities and resources required to respond to the contingencies, developing procedures for identifying and resolving contingencies with pharmaceutical logistics operations, and developing cost-effective and practical contingency plans to deal with the contingencies. - Review the contingencies that have previously occurred and the factors that have led to them, assessing the impact of the contingencies on the pharmaceutical logistics operations, and how people and organisations will respond to them, obtaining feedback from colleagues on the use of the contingency plans, and reviewing the effectiveness of the contingency plans at suitable opportunities. - Explain to all relevant people of the contingency plans, and provide advice and guidance on their implementation. - Report work activities and record them in the appropriate information systems according to organisational procedures. - Interpret all relevant work and safety legislation, regulations, standards, and organisational procedures. - Analyse methods for identifying contingencies with pharmaceutical logistics operations, and implement responses to contingencies using the appropriate methods and resources 	
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			<p>according to organisational procedures, also ensuring the requirements of customers are met when contingencies occur.</p> <ul style="list-style-type: none"> - Classify relevant information on contingencies from the appropriate people as soon as they occur, ensuring that colleagues are immediately informed of any contingencies that could affect their safety or performance and informing relevant people of the responses to the contingencies. - Distinguish the factors causing the contingencies using the appropriate problem-solving and investigation methods, and identify any potential opportunities for the organisation arising from the contingencies. - Analyse the delivery of the responses, and ensure that they are implemented according to organisational requirement, reporting work activities and recording them in the appropriate information systems according to organisational procedures. 	
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Learning outcome unit 5	Pharmaceutical Information System Management	ECVET Credits (ULO parts)		
Activity area				
ACTIVITIES	TASKS	KNOWLEDGE	SKILLS	COMPETENCE
Pharmaceutical Information System Management	<ul style="list-style-type: none"> ✓ Use the Information and Communication Technologies needed for the management of the order. ✓ Supervise the use of available ICT. ✓ Verify and supervise the efficiency and the conformity of the systems with regard to the activities 	<ul style="list-style-type: none"> - Define the role and impact of ICT in pharmaceutical logistic services management. - Describe ERP (Enterprise Resource Planning) systems. - Select specific software systems for pharmaceutical logistic services management. - Recognize e-Transactions in logistic services management (commercial exchanges between a company and its 	<ul style="list-style-type: none"> - Explain and analyse the role and impact of ICT in pharmaceutical logistic services management. - Give advanced ICT and other tools for gathering, analysing and interpreting data and information in pharmaceutical logistic services management. 	<ul style="list-style-type: none"> - Implement the ICT possibilities to the pharmaceutical logistics management. - Use the appropriate software system.

	<p>carried out.</p>	<p>suppliers or customers which are conducted electronically with other companies (B2B business-to-business), consumers (B2C), or governments (B2G), including processes during the presale or pre-purchase phase, the sale or purchase phase, and the after-sale / purchase phase of the logistic services).</p> <ul style="list-style-type: none"> - Describe e-Interactions in pharmaceutical logistic services management (collaborative business processes, such as collaborative online design processes which are not directly transaction focused). - Define e-Business in pharmaceutical logistic services management (automated business processes, both intra- and inter-firm over computer mediated networks - OECD). - Identify e-Commerce in pharmaceutical logistic services management (sale or purchase of goods or services conducted over computer-mediated networks - OECD). - Collect sources of data and information on ICT usage and perspectives in pharmaceutical logistic services management. 		
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EQF LEVEL	5
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LEARNING OUTCOME	Hospital Waste Management (Specialisation)	ECVET Credits (ULO)			
Learning outcome unit 1	Hospital waste contract logistics services management	ECVET Credits (ULO parts)			
Activity area					
ACTIVITIES	TASKS	KNOWLEDGE	SKILLS	COMPETENCE	
Hospital waste contract logistics services management	<ul style="list-style-type: none"> ✓ Analyze the contract, define and plan the activities ✓ Evaluate the economic sides of the contract in relation to the order ✓ Manage the order's budget ✓ Control, plan and manage of the costs ✓ Evaluate the productivity and profitability indexes of the order ✓ Propose functional improvements ✓ Compile the appropriate forms ✓ Control the performance of SLA (Service Level Agreement) and KPI (Key Performance Indicators) 	<ul style="list-style-type: none"> – Identify the relevant legislation and procedures applied to the procurement process, and different kind and characteristics of relevant agreements, including contracts, memoranda of understanding / memoranda of agreement, in house option directives, common use arrangements / standing offers, inter / intra-government agreements, letters of intent, licensing. – Collect the contract management strategy principles, techniques and tools, including for formal contract management planning, routines setting up, quality assurance systems (based on SLA - Service Level Agreement and KPI - Key Performance Indicators) checking,, transfer of legal responsibility, insurances, avoiding the implied acceptance of varied conditions through non-enforcement of contractual obligations – Define the communication strategy principles, techniques and tools, including for ensuring information flow at critical stages of the contract, and for setting regular times to talk, meet or 	<ul style="list-style-type: none"> – Describe the different contents of a contract management strategy, ensuring re-confirmation of contract requirements with parties, effective communication and information, confirmation / implementation of start up or transition arrangements, as well as documentation and monitoring for effectiveness of the management strategy and for its adaptation as necessary during the life of the contract. – Distinguish the different stages of contracting procedure: managing relationship with contractor in accordance with organisational policy and procedures; monitoring the performance of the contract against performance indicators to ensure all obligations under the agreement are being met and that obligations to the contractor are met in accordance with contractual arrangements; identifying and managing emerging and potential risks accordance with organisational risk management procedures; 	<ul style="list-style-type: none"> – Establish a contract management strategy. – Revise and apply contracting procedure. – Prepare and implement contract strategy – Prepare and implement the most economically advantageous strategy 	

		<p>check on progress, included protocols for dealing with other stakeholders, emergency contact arrangements, diary system to monitor milestones, timeframes, receipt of deliverables, etc.</p> <ul style="list-style-type: none"> - Identify different kind and characteristics of relevant risks, like suppliers' inability to meet agreements, end user or buyers' inability to meet obligations, limited number of suppliers. - Identify different kind and characteristics of relevant disputes: disputes over requirements, delivery schedules, price changes, additional tasking, payment schedules, complaints may be from third parties. - Collect techniques to resolve disputes, including conference, negotiation, mediation, arbitration, resort to contractual agreements, legal considerations. - Collect techniques to support negotiation on relevant issues, including contract variations, continuous improvement, innovations, non-compliance consequences - Describe different kind and characteristics of variations to agreements, including them arising from change of scope, negotiation of new terms and conditions, dissolution of contracts. - Select techniques and tools for organisational purposes documentation including relevant details extracted, collated and arranged in a format for reports and other documents. - Identify principles, techniques and tools for the evaluation of the procurement activity, including planning process and evaluation at each stage of the procurement, sources and methods of 	<p>managing the contract variations in accordance with the contract and organisational policy and procedures; investigating and resolving or referring disputes / complaints in accordance with contractual requirements; ensuring that negotiation of issues relating to the contract occurs and approvals are obtained in accordance with stipulations in the contract proper; maintaining communication on the performance of the contract with all stakeholders in accordance with organisational protocols and sectoral standards; and maintaining contract information is for organisational purposes in accordance with organisational policy and procedures.</p> <ul style="list-style-type: none"> - Differentiate how complete contracts and how implement contract review strategy: finalising; cancelling or terminating contracts in accordance with contractual arrangements; ensuring that strategies to manage close-out, renewal of the contract or transition to a new contract meet organisational guidelines and public sector standards; reviewing contract management, supplier performance relevant to measures at each stage of the contract, user satisfaction and audit results; documenting and explaining variances where measures or outcomes are not met in full; using information from the audit and review to report on provider performance, to review contract management practice and to make recommendations for improvement. - Give answer immediately and efficiently when there is a problem, 	
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		<p>gathering data, role of audit trails, measuring outputs meeting client needs, innovation, strategies for continuous improvement.</p> <ul style="list-style-type: none"> - Collect techniques, methodologies and tools in order to identify and analyze problems, define possible solutions , choose the best solution (problem setting, problem solving and decision making) - Describe short and long term costs associated with the collection, storage, transport and disposal of hospital waste 	<p>delay, and malfunction in the correct service/contract delivery.</p> <ul style="list-style-type: none"> - Implement strategies to achieve economic efficiency in the process of collection, storage, transport and disposal of hospital waste 	
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Learning outcome unit 2	Hospital waste Logistics Organisation And Management	ECVET Credits (ULO parts)		
Activity area				
ACTIVITIES	TASKS	KNOWLEDGE	SKILLS	COMPETENCE
Hospital waste Logistics Organisation And Management	<ul style="list-style-type: none"> - Plan, organize and control hospital waste logistics operations - Manage hospital waste reduction - Evaluation of technical, economic and environmental factors of operations - Check the resources supply for the site/contract - Implement and review risk management processes - Work with documents, including specific documents for labels, report of hospital waste, 	<ul style="list-style-type: none"> - Collect information about the chain supply: <ul style="list-style-type: none"> • Sources of information • How it operates • How supplies are moved through the supply chain • Systems and procedures for operating in the supply chain • Products, materials, and services that comprise supplies • Types of supply chains • Needs of the different customers - Identify the Legislation and regulations relating to hospital waste management, safety, and logistics operations: <ul style="list-style-type: none"> o Common trends in European legislation for the collection, storage, disposal of hospital 	<ul style="list-style-type: none"> - Analyze the suitable sources of information on the supply chain that are relevant to the organisation and its customers; identifying the features and characteristics of the supplies flowing through the supply chain; identifying the available transport modes and routes used, and the way supplies need to be stored; identifying any potential opportunities for the organisation arising from changes in the supply chain and obtaining information on the current legislation and regulations that apply to hospital waste management logistics operations in the supply chain. - Differentiate the specific requirements of customers in the 	<ul style="list-style-type: none"> - Plan, apply and asses the hospital waste management logistics operations working with the appropriate documents, plans, budgets, templates, etc. - Consider the costs and benefits of potential actions to choose the most appropriate one. - Use the resources supply for the site/contract. - Produce risk management processes. - Prepare reports according of the internal rules and regulations.

	<p>plans, budgets, templates, etc.</p> <ul style="list-style-type: none"> - Prepare reports according of the internal rules and regulations about hospital waste management logistics operations 	<p>waste and environmental protection;</p> <ul style="list-style-type: none"> o Types and classification of hospital waste o Eco-efficiency in the collection, storage and disposal of hospital waste and their impact on the environment <ul style="list-style-type: none"> - Understand the nature of reverse logistics. - Be aware of the regulatory trend requiring firms to develop reverse logistics processes that ensure proper end-of-life management. - Recognize the sources of information on legislation and regulations. - Be aware of the classification of hazardous waste in hospitals: infectious waste, used sharps, pathological and anatomical wastes, hazardous waste pharmaceuticals, waste containing chemicals and heavy metals, radioactive waste - Recognize non-hazardous wastes - Identify the conditions for the constructions of waste collection, temporary storage and the transmission of hospital waste - Describe working practices for separate collection, disposal and labelling of hospital waste - Knowledge of specialized vehicle transport of waste within the hospital - Explain the rules of storage of hazardous hospital waste - Describe methods for the treatment of hospital waste – incineration, autoclaving, microwave disinfection, chemical disinfection. - Identify the regulatory bodies and their compliance requirements. - Define the roles, responsibilities, and management systems. 	<p>supply chain and apply logistics operations to meet the requirements of customers in the supply chain.</p> <ul style="list-style-type: none"> - Analyze the activities of the main organisations operating in the supply chain; monitoring changes and developments to the supply chain that could have an effect on hospital waste management logistics operations and reporting work activities and record them in the appropriate information systems according to organisational procedures. - Describe the availability and demand for hospital waste management logistics resources in the organisation, as well as all relevant factors that could affect the use of the logistics resources and ways of improving or developing the logistics resources used in hospital waste management logistics operations, determining how the hospital waste management logistics resources could be used more effectively and efficiently. - Priority the use of hospital waste management logistics resources to achieve the most suitable balance of usage and performance, complying with all relevant work and safety legislation, regulations, standards, and organisational procedures. - Explain how hospital waste management logistics resources could be used more effectively with all the relevant people. - Analyze the use of logistics resources to identify any positive or negative effects on the delivery of hospital waste management logistics operations, assessing the level and 	
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		<ul style="list-style-type: none"> - Describe working practices, operating procedures, guidelines, and codes of practice. - Define the Quality assurance procedures. - Collect information systems and communication methods used by the organisation. - Identify the types of resources used in specific hospital waste management logistics operations, the factors that could affect the use of resources and the types of problem associated with the use of different types of resources. - Collect methods for optimising resources; - Identify the advantages and disadvantages of different transport modes. - Select the types of vehicles used in different transport modes. - List the major routes, transport hubs, and destinations. - Define the geography of routes and destinations. - Select the equipment and systems that are available and latest technological advances. - Define the implications of changes in technology. - Identify the licensing of technology. 	<p>type of logistics resources used for the hospital waste management logistics operations being undertaken and reporting work activities and record them in the appropriate information systems according to organisational procedures.</p> <ul style="list-style-type: none"> - Describe the main transport modes and transportation routes used to deliver the supplies to their destination, as well as any factors that affect the transportation of the supplies. - Classify the most suitable transport modes to enable supplies to reach their destination according to the organisation's requirements and coordinate logistics resources to work effectively with the selected transport modes, complying with all relevant work and safety legislation, regulations, standards, and organisational procedures. - Explain the data that is required to use the transport modes is processed correctly, reviewing the nature of the supplies being handled in the hospital waste management logistics operations and reporting work activities and record them in the appropriate information systems according to organisational procedures. - Give ways in which the technology has improved hospital waste management logistics operations, and recommend any further potential improvements, as well as any issues arising from the use of the technology and take the appropriate action to respond to them. - Priority any training needs associated with the use of the technology. 	
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			<ul style="list-style-type: none"> - Distinguish if technology is applied efficiently and effectively during hospital waste management logistics operations, following specified maintenance schedules according to manufacturers' and organisational procedures, devising effective ways of responding to failures in the technology and complying with all relevant work and safety legislation, regulations, standards, and organisational procedures. - Analyze colleagues to ensure that the technology is used safely in a way that is approved by the organisation, checking that colleagues using the technology understand its use and are competent in its operation, and report work activities and record them in the appropriate information systems according to organisational procedures. 	
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Learning outcome unit 3	Quality System Management		ECVET Credits (ULO parts)	
Activity area				
ACTIVITIES	TASKS	KNOWLEDGE	SKILLS	COMPETENCE
Quality System Management	<ul style="list-style-type: none"> ✓ Promote activities in accordance with the laws, regulations, and organizational procedures. ✓ Improve the quality of services. 	<ul style="list-style-type: none"> - Define Quality assurance procedures. - Collect information about: <ul style="list-style-type: none"> • Methods of monitoring developments in legislation and regulations. • Legislation and regulations relating to hospital waste management, safety, and logistics operations. • Sources of information on legislation and regulations. • Regulatory bodies and their 	<ul style="list-style-type: none"> - Analyze information from suitable sources on the current legislation and regulations that apply to the hospital waste management logistics operations being undertaken, monitoring changes and developments in legislation and regulations that could have an effect on hospital waste management logistics operations being undertaken, and confirming organisational procedures for the hospital waste management logistics 	<ul style="list-style-type: none"> - Apply all the procedures to ensure the implementation of the Quality System. - Use all the necessary resources (material and human) to guarantee the implementation of the Quality System. - Asses the implementation of the Quality System: identifying improving areas, proposing new actions... - Plan and implement a proper system of risk management,

		<p>compliance requirements.</p> <ul style="list-style-type: none"> - Define roles, responsibilities, and management systems. - Describe working practices, operating procedures, guidelines, and codes of practice. - Select information systems and communication methods used by the organisation. - Recognize ways of identifying non-compliance; implications of not complying with legislation and regulations. - Identify people responsible for complying with legislation and regulations. - Collect sources of information on improvement methods. - Examine improvement approaches and methods that are used in industry. - Define improvement methods used in the organisation; methods for evaluating improvement methods; advantages and disadvantages of different methods. - Identify risks that could affect to the Quality management. 	<p>operations being undertaken.</p> <ul style="list-style-type: none"> - Explain to colleagues the content and meaning of current legislation and regulations in a way that they are likely to understand, and inform all relevant people of any changes to regulations and organisational procedures that could affect them. - Monitor the work activities of colleagues and the use of equipment to ensure that regulations and organisational procedures are followed. - Identify any problems with compliance, and take the appropriate action to deal with them, and recommend improvements to the way the organisation complies with legislation and regulations. - Report work activities and record them in the appropriate information systems according to organisational procedures. - Give valid and reliable information on the performance of hospital waste management logistics operations, identifying potential areas for improvement, and agree with colleagues the need for improving them. - Give potential improvement methods that would be appropriate for the organisation and its logistics operations and select and apply the most suitable improvement methods for improving the quality of hospital waste management logistics operations. - Identify the success criteria that can be used to evaluate the effect of applying the improvement methods, monitoring the effects of applying 	<p>reduce the margin of error and thus ensure the achievement of the expected results.</p>
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			<p>the improvement methods over a suitable period of time, evaluating the effect on quality of applying the improvement methods, identifying any problems with applying improvement methods, and taking the appropriate action to deal with them.</p> <ul style="list-style-type: none"> - Report work activities and record them in the appropriate information systems according to organisational procedures. - Interpret all relevant work and safety legislation, regulations, standards, and organisational procedures. 	
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Learning outcome unit 4	Occupational Safety and Health Management	ECVET Credits (ULO parts)		
ACTIVITIES	TASKS	KNOWLEDGE	SKILLS	COMPETENCE
OSH Management	<ul style="list-style-type: none"> ✓ Promote and maintain the health, safety and hygiene during the hospital waste management logistic operations. ✓ Monitor the environmental impact of the activities carried out. ✓ Develop emergency plans for the movement operations. ✓ Handle the contingencies during the services' execution. ✓ Promote inspections on legality issues during the construction site's activities. 	<ul style="list-style-type: none"> - Identify sources of information on changes to hospital waste management, safety, and security legislation and regulations. - Collect information about: <ul style="list-style-type: none"> • Legislation, regulations, and organisational procedures that apply to hospital waste management and safety in the workplace. • Legislation and regulations relating to different types of logistics operations. • Legislation and regulations relating to prevent injuries • Injury Prevention & Control law • Basic concepts of disinfection and 	<ul style="list-style-type: none"> - Interpret regulations and organisational procedures for hospital waste management, safety, and security at all times, and monitor changes in hospital waste management, safety, and security regulations and guidelines, implementing their requirements. - Priority risks to the health, safety, and security of self and others when undertaking hospital waste management logistics operations are assessed according to organisational guidelines, monitoring the work of colleagues to ensure that safe working practices are followed at all times, ensuring that personal protective equipment is used 	<ul style="list-style-type: none"> - Apply all the procedures to ensure the implementation of the Occupational Safety and Hospital waste Management. - Use all the necessary resources (material and human) to guarantee the implementation of the Occupational Safety and Hospital waste Management. - Asses the implementation of the Occupational Safety and Hospital waste Management: identifying legislations, updating emergency plans...

		<p>sterilization</p> <ul style="list-style-type: none"> • Basic concepts of disposal of hazardous hospital waste • Regulatory bodies and their compliance requirements. <ul style="list-style-type: none"> - Define roles, responsibilities, and management systems. - Describe working practices, operating procedures, guidelines, and codes of practice. - Select information systems and communication methods used by the organisation. - Define responsibilities of all workers for hospital waste management, safety, and security. - Identify specific role responsibilities of colleagues for hospital waste management, safety, and security. - Collect risk assessment methods. - Select personal protective equipment that should be used for different hospital waste management logistics activities, and how to use it correctly. - Describe instructions for safely using different types of equipment, and who should issue them. - Identify types of hospital waste management, safety, and security incident that could occur. - Collect safety equipment and procedures that should be used with different types of accident or emergency. - Describe accident and emergency procedures of the organisation, including individual roles and responsibilities. - Show location of the approved escape routes. - Outline alarm systems and procedures for contacting the emergency services. 	<p>correctly and that manufacturers' and other relevant instructions relating to the safe use of equipment are followed.</p> <ul style="list-style-type: none"> - Give visitors to the work area the information about hospital waste management, safety, and security procedures, and prevent unauthorised access to restricted areas. - Analyze promptly any health and safety hazards and security issues, taking immediate action to prevent injury, theft, or damage, and giving priority to the protection of people over organisational performance, and responding to incidents affecting health, safety, and security by using the appropriate safety equipment and carrying out the safety procedures specified by the organisation. - Distinguish the appropriate electronic or manual information systems to report accidents and emergencies. - Identify the activities and resources required to respond to the contingencies, developing procedures for identifying and resolving contingencies with hospital waste management logistics operations, and developing cost-effective and practical contingency plans to deal with the contingencies. - Review the contingencies that have previously occurred and the factors that have led to them, assessing the impact of the contingencies on the hospital waste management logistics operations, and how people and organisations will respond to them, obtaining feedback from colleagues 	
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		<ul style="list-style-type: none"> - Define legal responsibilities for reporting accidents and emergencies. - Record accidents and emergencies. - Define safety measures that should be undertaken for visitors attending the workplace. - Identify types of contingency that can occur with different hospital waste management logistics operations. - Describe factors that could lead to contingencies. - Define contingency planning methods. - Recognize risk assessment methods that are used. - Write how to resolve typical contingencies. - Show typical signs and indications of emerging contingencies. - Describe problem solving and investigation methods. - Define who should be informed when contingencies occur. - Describe types of opportunity that can arise from contingencies. - Recognize quality assurance procedures. 	<p>on the use of the contingency plans, and reviewing the effectiveness of the contingency plans at suitable opportunities.</p> <ul style="list-style-type: none"> - Explain to all relevant people of the contingency plans, and provide advice and guidance on their implementation. - Report work activities and record them in the appropriate information systems according to organisational procedures. - Interpret all relevant work and safety legislation, regulations, standards, and organisational procedures. - Analyse methods for identifying contingencies with hospital waste management logistics operations, and implement responses to contingencies using the appropriate methods and resources according to organisational procedures, also ensuring the requirements of customers are met when contingencies occur. - Classify relevant information on contingencies from the appropriate people as soon as they occur, ensuring that colleagues are immediately informed of any contingencies that could affect their safety or performance and informing relevant people of the responses to the contingencies. - Distinguish the factors causing the contingencies using the appropriate problem-solving and investigation methods, and identify any potential opportunities for the organisation arising from the contingencies. - Analyse the delivery of the responses, and ensure that they are implemented according to 	
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			organisational requirement, reporting work activities and recording them in the appropriate information systems according to organisational procedures.	
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Learning outcome unit 5		Hospital waste Information System Management		ECVET Credits (ULO parts)	
Activity area					
ACTIVITIES	TASKS	KNOWLEDGE	SKILLS	COMPETENCE	
Hospital waste Information System Management	<ul style="list-style-type: none"> ✓ Use the Information and Communication Technologies needed for the management of the order. ✓ Supervise the use of available ICT. ✓ Verify and supervise the efficiency and the conformity of the systems with regard to the activities carried out. 	<ul style="list-style-type: none"> – Define the role and impact of ICT in hospital waste management logistic services management. – Describe ERP (Enterprise Resource Planning) systems. – Select specific software systems for hospital waste management logistic services management. – Recognize e-Transactions in logistic services management (commercial exchanges between a company and its suppliers or customers which are conducted electronically with other companies (B2B business-to-business), consumers (B2C), or governments (B2G), including processes during the presale or pre-purchase phase, the sale or purchase phase, and the after-sale / purchase phase of the logistic services). – Describe e-Interactions in hospital waste management logistic services management (collaborative business processes, such as collaborative online design processes which are not directly transaction focused). – Define e-Business in hospital waste management logistic services management (automated business processes, both intra- and inter-firm over computer mediated networks - OECD). – Identify e-Commerce in hospital waste 	<ul style="list-style-type: none"> – Explain and analyse the role and impact of ICT in hospital waste management logistic services management. – Give advanced ICT and other tools for gathering, analysing and interpreting data and information in hospital waste management logistic services management. 	<ul style="list-style-type: none"> – Implement the ICT possibilities to the hospital waste management – Use the appropriate software system. 	

		<p>management logistic services management (sale or purchase of goods or services conducted over computer-mediated networks - OECD).</p> <ul style="list-style-type: none">- Collect sources of data and information on ICT usage and perspectives in hospital waste management logistic services management.		
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